



Westinghouse
Hanford Company

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2 of 7

OSM RCRA LEVEL C DATA ASSESSMENT

DATE 3-5-91

SAMPLES/MATRIX Seq #1 - 90-009 Seq. 2#90-010

REVIEWED BY C.J. SIMULE

Conrad Sunquell

Seq #3 - 90-011 Seq #4 - 90-012

Seq 5 - 90-013

90-3617 90-3620 90-4180

LABORATORY PNL-325

90-3618 90-4178

CASE # SST-241-B-110

90-3619 90-4179

SDG # Core 16

DATA ASSESSMENT SUMMARY

QUALITY CONTROL CHECK	ANALYSIS	ICP ^f	ICP ^A	ICP ^W
1. Holding Time		O	O	O
2. Calibration	X (B)	O (B)	O	
3. Analytical Blank	X	X	X	
4. LCS	*	*	*	
5. ICS (ICP ONLY)	*	*	*	
6. Matrix Spike	M	X	M	
7. Duplicate Analyses	X	X	O	
8.	/	/	/	
9.	/	/	/	
10.	/	/	/	

O = data had no problems

X = data qualified due to minor problems

M = data qualified due to major problems/some data may be unusable

OVERALL ASSESSMENT: (Samples not qualified based on exceeded holding times.)

NOTES: * = no data provided with data package.

No Radiochemical Validation done on data package.
^f=Fusion, A=acid digest., W=Water leach

o Refer to the corresponding attachments for explanation of any problems.

(B) Bismuth calibration is within control limits.



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OSM RCRA LEVEL C DATA ASSESSMENT

DATE 3-5-91 Conquin Sample SAMPLES/MATRIX Seq #1-90-009, Seq 2-90-010
REVIEWED BY C.J. SIMILE Seq 3-90-011, Seq 4-90-012
LABORATORY PNL-325 Seq 5-90-013
CASE # SST-241-B-110 90-3617 90-3620 90-4180
SDG # Core 16 90-3618 90-4178
90-3619 90-4179

DATA ASSESSMENT SUMMARY

QUALITY CONTROL CHECK	ANALYSIS	IC	TOC/TIC	A.A.
1. Holding Time		X	X	O
2. Calibration		O	O	X
3. Analytical Blank		O	X	O
4. LCS		*	*	*
5. ICS (ICP ONLY)		N/A	N/A	N/A
6. Matrix Spike		X	M	X
7. Duplicate Analyses		O	O	O
8.	/	/	/	/
9.	/	/	/	/
10.	/	/	/	/

O = data had no problems

X = data qualified due to minor problems

M = data qualified due to major problems/some data may be unusable

OVERALL ASSESSMENT: (Samples not qualified based on exceeded holding times.)

NOTES: * = no data provided with data package

No Radiochemical Validation done on data package.

- o Refer to the corresponding attachments for explanation of any problems.



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OSM RCRA LEVEL C DATA ASSESSMENT

DATE 3-5-91 REVIEWED BY C.J. SIMILE LABORATORY PNL-325 CASE # SST-241-B-110 SDG # Core 14 SAMPLES/MATRIX Seq #1 90-009 Seq 2 90-010
Conc Sample Seq 3 90-011 Seq 4 90-012
Seq 5 90-013
90-3617 90-3620 90-4180
90-3618 90-4178
90-3619 90-4179

DATA ASSESSMENT SUMMARY

QUALITY CONTROL CHECK	ANALYSIS (Cr(VI))	NH ₃	Hg
1. Holding Time	X	X	X
2. Calibration	O	X	O
3. Analytical Blank	O	O	O
4. LCS	*	*	*
5. ICS (ICP ONLY)	N/A	N/A	N/A
6. Matrix Spike	M	O	X
7. Duplicate Analyses	O	O	O
8.	/	/	/
9.	/	/	/
10.	/	/	/

O = data had no problems

X = data qualified due to minor problems

M = data qualified due to major problems/some data may be unusable

OVERALL ASSESSMENT: (Samples not qualified based on exceeded holding times.)

NOTES: * = no data provided with data package

No Radiochemical Validation done on data package.

- o Refer to the corresponding attachments for explanation of any problems.

**TABLE 10.1: SST Core 16, Segment 3 Homogenization Check
Fusion ICP**

Samp Log#:	90-3617a1	90-3617a2	90-3618a1	90-3618a2	90-3617a3	Dilution:	1.00	1.00	1.00	1.00	DL	QL
Wt% Fctr:	0.51369	0.51622	0.52859	0.53376	0.52293	ICP Run#:	2023	2022	2024	2025	2021	
Ag	<DL	R	<DL	R	<DL	(Wt %)	(Wt %)	RPD	(Wt %)	RPD	(Wt %)	(ug/mL) (ug/mL)
Al	<DL	<DL	<DL	<DL	<DL							0.0157 0.0525
As	<DL	<DL	<DL	<DL	<DL							0.0528 0.1761
B	<DL	<DL	<DL	<DL	<DL							0.0889 0.2965
Be	<DL	<DL	(0.0020)	(0.0023)	13.1%							0.0639 0.2130
Ca	0.0549	0.0581	5.7%	0.0622	0.0584	6.3%	0.0222					0.0037 0.0123
Cd	<DL	<DL	<DL	<DL	<DL							0.0002 0.0006
Ce	<DL	<DL	<DL	<DL	<DL							0.0014 0.0048
Co	<DL	<DL	<DL	<DL	<DL							0.0062 0.0207
Cr	0.0749	0.0927	21.3%	0.0736	0.0807	9.2%	<DL					0.2143 0.7145
Cu	<DL	<DL	<DL	<DL	<DL							0.4199 1.3997
Dy	<DL	<DL	<DL	<DL	<DL							0.0229 0.0762
Fe	1.6476	1.7487	6.0%	1.6317	1.8423	12.1% (0.0097)						0.0163 0.0544
K												0.0139 0.0464
La	<DL	<DL	<DL	<DL	<DL							0.0080 0.0268
Li	<DL	<DL	<DL	<DL	<DL							0.5156 1.7188
Mg	0.0120	0.0124	3.0%	0.0124	0.0132	6.4% 0.0042						0.0109 0.0364
Mn	0.0068	0.0073	7.8%	0.0076	0.0072	5.5% (0.0011)						0.0010 0.0032
Mo	<DL	<DL	<DL	<DL	<DL							0.0015 0.0049
Na	9.1296	9.2627	1.4%	9.1069	10.0183	9.5% (0.0776)						0.0130 0.0433
Nd	<DL	<DL	<DL	<DL	<DL							0.1319 0.4396
Ni												0.0942 0.3140
P	1.5981	1.7170	7.2%	1.7003	1.7399	2.3% <DL						0.0215 0.0717
Pb	<DL	<DL	<DL	<DL	<DL							0.3847 1.2822
Re	<DL	<DL	<DL	<DL	<DL							0.0674 0.2248
Rh	<DL	<DL	<DL	<DL	<DL							0.0156 0.0522
Ru	<DL	<DL	<DL	<DL	<DL							0.1190 0.3967
Sb	<DL	<DL	<DL	<DL	<DL							0.0712 0.2374
Se	<DL	<DL	<DL	<DL	<DL							0.1069 0.3562
Si	0.8794	0.8770	0.3%	0.8753	0.9653	9.8% (0.0373)						0.1081 0.3602
Sr	0.0266	0.0266	0.3%	0.0265	0.0289	8.8% <DL						0.0587 0.1957
Te	<DL	<DL	<DL	<DL	<DL							0.0013 0.0045
Th	<DL	<DL	<DL	<DL	<DL							0.0650 0.2167
Ti	<DL	<DL	<DL	<DL	<DL							0.1658 0.5526
Tl	<DL	<DL	<DL	<DL	<DL							0.0121 0.0404
U	<DL	<DL	<DL	<DL	<DL							3.1009 10.3364
V	<DL	<DL	<DL	<DL	<DL							1.3258 4.4192
Zn	0.0097	0.0110	13.0%	0.0106	0.0107	1.5% (0.0032)						0.0107 0.0357
Zr	<DL	<DL	<DL	<DL	<DL							0.0046 0.0154
Bi	2.0240	2.0132	0.5%	2.0139	2.1137	4.8% <DL						0.0101 0.0337

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3-5-91
C.V. Sample

TABLE 10.2: SST Core 16, Segment 5 Homogenization Check
Fusion ICP

Samp Log#:	90-3619a1	90-3619a2	90-3620a1	90-3620a2	90-3619a3	Dilution:	1.00	1.00	1.00	1.00	DL	QL
Wt% Fctr:	0.53851	0.48583	0.53204	0.47158	0.50535	ICP Run#:	2030	2029	2031	2032	2028	
Ag	<DL	R	<DL	RPD	<DL	R	<DL	<DL	<DL	<DL	(ug/mL)	(ug/mL)
Al	<DL	<DL	<DL		<DL	<DL	<DL	<DL	<DL	<DL	0.0157	0.0525
As	<DL	<DL	<DL		<DL	<DL	<DL	<DL	<DL	<DL	0.0528	0.1761
B	<DL	<DL	<DL		<DL	<DL	<DL	<DL	<DL	<DL	0.0889	0.2965
Ba	<DL	(0.0022)	<DL		<DL	<DL	<DL	<DL	<DL	<DL	0.0639	0.2130
Be	<DL	<DL	<DL		<DL	<DL	<DL	<DL	<DL	<DL	0.0037	0.0123
Ca	0.0585	0.0563	3.7%	0.0619	0.0559	10.2%	0.0221				0.0002	0.0006
Cd	<DL	<DL	<DL		<DL	<DL	<DL	<DL	<DL	<DL	0.0014	0.0048
Ce	<DL	<DL	<DL		<DL	<DL	<DL	<DL	<DL	<DL	0.0062	0.0207
Co	<DL	<DL	<DL		<DL	<DL	<DL	<DL	<DL	<DL	0.2143	0.7145
Cr	0.0787	0.0775	1.6%	0.0726	0.0763	5.0%	<DL				0.4199	1.3997
Cu	<DL	<DL	<DL		<DL	<DL	<DL	<DL	<DL	<DL	0.0229	0.0762
Dy	<DL	<DL	<DL		<DL	<DL	<DL	<DL	<DL	<DL	0.0163	0.0544
Fe	1.7976	1.7693	1.6%	1.7284	1.7981	4.0%	0.0169				0.0139	0.0464
K											0.0080	0.0268
La	<DL	<DL	<DL		<DL	<DL	<DL	<DL	<DL	<DL	0.5156	1.7188
Li	<DL	<DL	<DL		<DL	<DL	<DL	<DL	<DL	<DL	0.0190	0.0634
Mg	0.0135	0.0135	0.3%	0.0124	0.0131	5.6%	0.0031				0.0109	0.0364
Mn	0.0065	0.0054	18.0%	0.0071	0.0090	23.2%	(0.0019)				0.0010	0.0032
Mo	<DL	<DL	<DL		<DL	<DL	<DL	<DL	<DL	<DL	0.0015	0.0049
Na	10.0434	9.5021	5.5%	9.6355	9.8082	1.8%	(0.0730)				0.0130	0.0433
Nd	<DL	<DL	<DL		<DL	<DL	<DL	<DL	<DL	<DL	0.1319	0.4396
Ni											0.0942	0.3140
P	1.7259	1.6083	7.0%	1.6323	1.6147	1.1%	<DL				0.0215	0.0717
Pb	<DL	<DL	<DL		<DL	<DL	<DL	<DL	<DL	<DL	0.3847	1.2822
Re	<DL	<DL	<DL		<DL	<DL	<DL	<DL	<DL	<DL	0.0674	0.2248
Rh	<DL	<DL	<DL		<DL	<DL	<DL	<DL	<DL	<DL	0.0156	0.0522
Ru	<DL	<DL	<DL		<DL	<DL	<DL	<DL	<DL	<DL	0.1190	0.3967
Sb	<DL	<DL	<DL		<DL	<DL	<DL	<DL	<DL	<DL	0.0712	0.2374
Se	<DL	<DL	<DL		<DL	<DL	<DL	<DL	<DL	<DL	0.1069	0.3562
Si	0.9797	0.9476	3.3%	0.9571	0.9878	3.2%	<DL				0.1081	0.3602
Sr	0.0256	0.0258	0.9%	0.0243	0.0269	9.8%	<DL				0.0587	0.1957
Te	<DL	<DL	<DL		<DL	<DL	<DL	<DL	<DL	<DL	0.0013	0.0045
Th	<DL	<DL	<DL		<DL	<DL	<DL	<DL	<DL	<DL	0.0650	0.2167
Ti	<DL	<DL	<DL		<DL	<DL	<DL	<DL	<DL	<DL	0.1658	0.5526
Tl	<DL	<DL	<DL		<DL	<DL	<DL	<DL	<DL	<DL	0.0121	0.0404
U	<DL	<DL	<DL		<DL	<DL	<DL	<DL	<DL	<DL	3.1009	10.3364
V	<DL	<DL	<DL		<DL	<DL	<DL	<DL	<DL	<DL	1.3258	4.4192
Zn	0.0144	0.0139	3.4%	0.0142	0.0185	26.2%	(0.0032)				0.0107	0.0357
Zr	<DL	<DL	<DL		<DL	<DL	<DL	<DL	<DL	<DL	0.0046	0.0154
Bi	1.8579	2.0162	8.2%	1.9366	1.9476	0.6%	<DL				0.0101	0.0337

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3-5-91
C.V. Campbell

TABLE 10.3: SST Core 16, Composite Homogenization Check
Fusion ICP

Samp Log#:	90-4178a1	90-4178a2	90-4179a1	90-4179a2	90-4178a3	DL	QL
Dilution:	1.00	1.00	1.00	1.00	1.00		
Wt% Fctr:	0.45441	0.60477	0.40452	0.40197	0.45382		
ICP Run#:	2042	2041	2043	2044	2040		
Ag	<DL	<DL	<DL	<DL	<DL	(ug/mL)	(ug/mL)
Al	0.1433	0.1509	5.2%	0.1492	0.1509	0.0157	0.0525
As	<DL	<DL	<DL	<DL	<DL	0.0528	0.1761
B	<DL	<DL	<DL	<DL	<DL	0.0889	0.2965
Ba	<DL	<DL	0.0099	(0.0016)144.5%	0.0102	0.0639	0.2130
Be	<DL	<DL	<DL	<DL	<DL	0.0037	0.0123
Ca	0.0666	0.0771	14.6%	0.1017	0.0682	0.0002	0.0006
Cd	<DL	<DL	<DL	<DL	<DL	0.0014	0.0048
Ce	<DL	<DL	<DL	<DL	<DL	0.0062	0.0207
Co	<DL	<DL	<DL	<DL	<DL	0.2143	0.7145
Cr	0.0784	0.0803	2.4%	0.0784	0.0782	0.4199	1.3997
Cu	0.0333	0.0367	9.9%	0.0234	0.0230	0.0229	0.0762
Dy	<DL	<DL	<DL	<DL	<DL	0.0163	0.0544
Fe	1.8368	1.8629	1.4%	1.8301	1.8181	0.0139	0.0464
K						0.0080	0.0268
La	<DL	<DL	<DL	<DL	<DL	0.5156	1.7188
Li	<DL	<DL	<DL	<DL	<DL	0.0190	0.0634
Hg	0.0144	0.0166	14.3%	0.0129	0.0104	0.0109	0.0364
Mn	0.0088	0.0103	15.9%	0.0140	0.0176	0.0010	0.0032
Mo	<DL	<DL	<DL	<DL	<DL	0.0015	0.0049
Na	9.5655	9.6766	1.2%	9.2516	9.2881	0.0130	0.0433
Nd	<DL	<DL	<DL	<DL	<DL	0.0942	0.3140
Ni						0.0215	0.0717
P	1.4934	1.6187	8.1%	1.4490	1.5364	0.3847	1.2822
Pb	<DL	<DL	<DL	<DL	<DL	0.0674	0.2248
Re	<DL	<DL	<DL	<DL	<DL	0.0156	0.0522
Rh	<DL	<DL	<DL	<DL	<DL	0.1190	0.3967
Ru	<DL	<DL	<DL	<DL	<DL	0.0712	0.2374
Sb	<DL	<DL	<DL	<DL	<DL	0.1069	0.3562
Se	<DL	<DL	<DL	<DL	<DL	0.1081	0.3602
Si	1.0057	1.0224	1.6%	1.0121	1.0013	0.0587	0.1957
Sr	0.0260	0.0266	2.2%	0.0258	0.0257	0.0013	0.0045
Te	<DL	<DL	<DL	<DL	<DL	0.0650	0.2167
Th	<DL	<DL	<DL	<DL	<DL	0.1658	0.5526
Ti	<DL	<DL	<DL	<DL	<DL	0.0121	0.0404
Tl	<DL	<DL	<DL	<DL	<DL	3.1009	10.3364
U	<DL	<DL	<DL	<DL	<DL	1.3258	4.4192
V	<DL	<DL	<DL	<DL	<DL	0.0107	0.0357
Zn	0.0206	0.0251	19.5%	0.0287	0.0209	0.0046	0.0154
Zr	<DL	<DL	<DL	<DL	<DL	0.0101	0.0337
Bi	1.8903	1.9474	3.0%	1.9255	1.9857	3.1%	<DL

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C.V.Sunzel

TABLE 10.4: SST Core 16, Core Composite Acid Leach ICP

Samp Log#:	90-4180a1	90-4180a1	90-4180a2		90-4180a2	90-4180a5		90-4180a5
Dilution:	1.00	5.00	1.00		5.00	1.00		5.00
Wt% Factor	0.02061	0.10304	0.02233		0.11167	0.02144		0.10718
ICP Run #	2076	2083	2076	2082	2072	2079	DL	QL
(Wt %)	(Wt %)	%dif	(Wt %)	(Wt %)	%dif	(Wt % *)	(Wt % *)	%dif
Ag 0.0013	<DL		0.0012	<DL		<DL	<DL	
Al 0.1482	0.1510	1.9%	0.1470	0.1482	0.9%	(0.0018)	<DL	
As <DL	<DL		<DL	<DL		<DL	<DL	
B 0.0044	LL	<DL	(0.0045)	<DL		0.0056	<DL	
Ba 0.0016	0.0016	0.6%	0.0017	0.0018	1.5%	(0.0002)	<DL	
Be <DL	<DL		<DL	<DL		<DL	<DL	
Ca 0.0714	LL	0.0735	2.9%	0.0730	0.0749	2.6%	0.0273	0.0274
Cd 0.0008	(0.0009)		0.0007	(0.0007)		(0.0003)	(0.0007)	
Ce <DL	<DL		<DL	<DL		<DL	<DL	
Co <DL	<DL		<DL	<DL		<DL	<DL	
Cr 0.0826	0.0836	1.1%	0.0814	0.0825	1.4%	<DL	<DL	
Cu 0.0075	0.0077	2.6%	0.0074	0.0078	4.9%	<DL	<DL	
Dy <DL	<DL		<DL	<DL		<DL	<DL	
Fe 1.8623	1.9033	2.2%	1.8179	1.8634	2.5%	0.0034	0.0033	1.8%
K (0.0317)	<DL		(0.0329)	<DL		<DL	<DL	
La (0.0007)	<DL		(0.0006)	<DL		<DL	<DL	
Li <DL	<DL		<DL	<DL		<DL	<DL	
Mg 0.0157	LL	0.0162	2.6%	0.0170	0.0175	2.9%	0.0034	0.0036
Mn 0.0054	0.0055	0.9%	0.0054	0.0054	0.9%	(0.0001)	<DL	
Mo (0.0007)	<DL		(0.0008)	<DL		<DL	<DL	
Na 9.3137	9.4919	1.9%	9.3765	9.5206	1.5%	0.0150	(0.0149)	
Nd <DL	<DL		<DL	<DL		<DL	<DL	
Ni 0.0020	<DL		0.0019	<DL		<DL	<DL	
P 1.6999	1.6383	3.6%	1.5313	1.6292	6.4%	<DL	<DL	
Pb 0.0284	0.0289	1.9%	0.0281	0.0300	6.7%	<DL	<DL	
Re (0.0007)	<DL		(0.0006)	<DL		<DL	<DL	
Rh <DL	<DL		<DL	<DL		<DL	<DL	
Ru 0.0187	(0.0204)		0.0182	(0.0200)		<DL	<DL	
Sb <DL	<DL		<DL	<DL		<DL	<DL	
Se <DL	<DL		<DL	<DL		<DL	<DL	
Si 0.0361	J	0.0354	1.8%	0.0479	0.0469	2.1%	(0.0029)	<DL
Sr 0.0268	0.0271	1.0%	0.0266	0.0269	1.2%	(0.0001)	<DL	
Te (0.0018)	<DL		(0.0016)	<DL		<DL	<DL	
Th <DL	<DL		<DL	<DL		<DL	<DL	
Ti (0.0004)	J	<DL		(0.0006)	<DL		<DL	<DL
Tl <DL	<DL		<DL	<DL		<DL	<DL	
U 0.0965	<DL		(0.0930)	<DL		<DL	<DL	
V (0.0004)	<DL		(0.0004)	<DL		<DL	<DL	
Zn 0.0079	0.0082	4.8%	0.0085	0.0089	4.8%	0.0003	(0.0006)	
Zr (0.0005)	<DL		(0.0005)	<DL		<DL	<DL	
Bi 2.1724			2.1418					

* Methods blank + average sample weight used to calculate wt%.

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3-5-91
C.J.Smith

TABLE 10.4: SST Core 16, Core Composite Acid Leach ICP (Cont'd)

	90-4180a1	90-4180a3		90-4180a3		<Sample ID>		90-4180a4		90-4180a4		
		1.00		5.00		<Dilution>		1.00		5.00		
		Average	Spike Added	Spike+ Sample	Spike+ Sample	Spike Control	Spike Control	Spike STD	% rec			
	(Wt %)	RPD	(Wt %)	(Wt %)	(Wt %)	% Dif	% Rec	(ug/mL)	(ug/mL)	% Dif	(ug/mL)	% rec
Ag	0.0012	6.7%		0.0012	<DL							
Al	0.1476	0.8%		0.1504	0.1532	1.9%						
As	N/A			0.0338	0.0374	10.4%	94.3%	18.4	19.3	5.1%	20.0	91.8%
B	0.0044	1.2%	0.0359	0.0068	(0.0059)							
Ba	0.0017	9.7%	0.0359	0.0363	0.0366	0.8%	96.5%	19.7	19.4	1.7%	20.0	98.5%
Be	N/A		0.0009	0.0009	0.0009	2.8%	95.0%	0.5	0.5	1.6%	0.5	95.6%
Ca	0.0722	2.2%		0.0659	0.0680	3.1%						
Cd	0.0007	9.5%	0.0009	0.0016	(0.0017)		97.6%	0.7	0.7	6.7%	0.5	130.2%
Ce	N/A			<DL	<DL							
Co	N/A		0.0090	(0.0118)	<DL		131.4%	6.1	5.9	3.4%	5.0	122.1%
Cr	0.0820	1.6%		0.0828	0.0842	1.7%						
Cu	0.0075	1.2%	0.0045	0.0118	0.0123	4.5%	96.2%	2.6	2.7	4.3%	2.5	102.2%
Dy	N/A			<DL	<DL							
Fe	1.8401	2.4%		1.8495	1.9005	2.8%						
K	0.0323	3.6%		0.0331	<DL							
La	0.0006	22.9%		(0.0007)	<DL							
Li	N/A			<DL	<DL							
Mg	0.0164	7.6%		0.0152	0.0157	3.1%						
Mn	0.0054	0.9%	0.0090	0.0141	0.0144	2.0%	97.1%	5.0	4.9	1.7%	5.0	99.0%
Mo	0.0008	3.8%		0.0008	(0.0012)							
Na	9.3451	0.7%		9.5122	9.6427	1.4%						
Nd	N/A			<DL	<DL							
Ni	0.0019	4.3%	0.0090	0.0104	0.0109	5.0%	94.6%	5.0	4.9	2.5%	5.0	99.0%
P	1.6156	10.4%		1.6383	1.7078	4.2%						
Pb	0.0282	1.0%	0.0090	0.0355	0.0375	5.6%	81.4%	5.1	5.4	5.8%	5.0	101.9%
Re	0.0007	15.4%		(0.0008)	<DL							
Rh	N/A			<DL	<DL							
Ru	0.0185	2.8%		0.0185	(0.0200)							
Sb	N/A		(0.0049)	<DL								
Se	N/A		0.0359	0.0196	(0.0218)							
Si	0.0420	28.2%		0.1833	0.1806	1.5%	54.6%	13.1	11.4	13.0%	20.0	65.6%
Sr	0.0267	0.7%		0.0270	0.0273	1.1%						
Te	0.0017	12.2%		(0.0022)	<DL							
Th	N/A			<DL	<DL							
Tl	0.0005	32.4%		(0.0004)	<DL							
Tl	N/A		0.0359	<DL	<DL		93.7%	18.2	20.6	12.9%	20.0	91.2%
U	0.0947	3.8%		0.0954	<DL							
V	0.0004	1.7%	0.0090	0.0091	0.0095	3.5%	96.9%	5.0	4.9	0.9%	5.0	99.2%
Zn	0.0082	8.1%	0.0090	0.0165	0.0171	3.4%	92.6%	4.9	5.0	2.3%	5.0	98.6%
Zr	0.0005	0.7%		(0.0005)	<DL							
Bi	2.1571	1.4%		2.2079								

11/05/90

3-5-a
C/Surfield

TABLE 10.5: SST Core 16, Core Composite Water Leach ICP

Samp Log#: 90-4180c190-4180c1		90-4180c290-4180c2		90-4180c5				90-4180c1		90-4180c2			
Dilution:	2.00	10.00	2.00	10.00	2.00			DL	QL	Average			
Wt% Fctr:	0.01903	0.09516	0.01811	0.09053	0.01872	0.09359							
ICP Run#:	2091	2088	2090	2087	2089	2086							
	(Wt %)	(Wt %)	Xdif	(Wt %)	(Wt %)	Xdif	(Wt % *)	(Wt % *)	(ug/mL)	(ug/mL)	(Wt %)	RPD	
Ag	<DL	<DL	<DL	<DL	<DL	<DL	<DL	<DL	0.0157	0.0525	N/A		
Al	(0.0013)	<DL	R	(0.0012)	<DL	<DL	<DL	<DL	0.0528	0.1761	0.0013	9.2%	
As	<DL	<DL	<DL	<DL	<DL	<DL	<DL	<DL	0.0889	0.2965	N/A		
B	<DL	<DL	<DL	<DL	<DL	<DL	<DL	<DL	0.0639	0.2130	N/A		
Ba	<DL	<DL	<DL	<DL	<DL	<DL	<DL	<DL	0.0037	0.0123	N/A		
Be	<DL	<DL	<DL	<DL	<DL	<DL	<DL	<DL	0.0002	0.0006	N/A		
Ca	0.0009	0.0020	126.9%	0.0007	0.0014	92.9%	0.0005	0.0043	0.0014	0.0048	0.0008	15.5%	
Cd	<DL	<DL	<DL	<DL	<DL	<DL	<DL	<DL	0.0062	0.0207	N/A		
Ce	<DL	<DL	<DL	<DL	<DL	<DL	<DL	<DL	0.2143	0.7145	N/A		
Co	<DL	<DL	<DL	<DL	<DL	<DL	<DL	<DL	0.4199	1.3997	N/A		
Cr	0.0059	(0.0061)		0.0059	(0.0065)		<DL	<DL	0.0229	0.0762	0.0059	0.1%	
Cu	<DL	<DL	<DL	<DL	<DL	<DL	<DL	<DL	0.0163	0.0544	N/A		
Dy	<DL	<DL	<DL	<DL	<DL	<DL	<DL	<DL	0.0139	0.0464	N/A		
Fe	0.0094	0.0096	2.0%	0.0087	0.0087	0.3%	<DL	<DL	0.0080	0.0268	0.0091	8.4%	
K	(0.0197)	<DL		(0.0194)	<DL		<DL	<DL	0.5156	1.7188	0.0196	1.8%	
La	<DL	<DL	<DL	<DL	<DL	<DL	<DL	<DL	0.0190	0.0634	N/A		
Li	<DL	<DL	<DL	<DL	<DL	<DL	<DL	<DL	0.0109	0.0364	N/A		
Mg	0.0003	0.0006	115.5%	0.0003	0.0005	83.1%	0.0001	0.0006	0.0010	0.0032	0.0003	4.2%	
Mn	(0.0000)	<DL		(0.0000)	<DL		<DL	<DL	0.0015	0.0049	0.0000	12.9%	
Mo	(0.0006)	<DL		(0.0005)	(0.0015)		<DL	<DL	0.0130	0.0433	0.0006	9.3%	
Na	8.4577	8.4707	0.2%	8.4780	8.5323	0.6%	<DL	<DL	0.1319	0.4396	8.4678	0.2%	
Nd	<DL	<DL	<DL	<DL	<DL	<DL	<DL	<DL	0.0942	0.3140	N/A		
Ni	<DL	<DL	<DL	<DL	<DL	<DL	<DL	<DL	0.0215	0.0717	N/A		
P	0.7725	0.7733	0.1%	0.8155	0.8015	1.7%	<DL	<DL	0.3847	1.2822	0.7940	5.4%	
Pb	<DL	<DL	<DL	<DL	<DL	<DL	<DL	<DL	0.0674	0.2248	N/A		
Re	<DL	<DL	<DL	<DL	<DL	<DL	<DL	<DL	0.0156	0.0522	N/A		
Rh	<DL	<DL	<DL	<DL	<DL	<DL	<DL	<DL	0.1190	0.3967	N/A		
Ru	<DL	<DL	<DL	<DL	<DL	<DL	<DL	<DL	0.0712	0.2374	N/A		
Sb	<DL	<DL	<DL	<DL	<DL	<DL	<DL	<DL	0.1069	0.3562	N/A		
Se	<DL	<DL	<DL	<DL	<DL	<DL	<DL	<DL	0.1081	0.3602	N/A		
Si	0.0437	0.0442	1.2%	0.0482	0.0483	0.2%	<DL	<DL	0.0587	0.1957	0.0459	9.8%	
Sr	(0.0001)	<DL		(0.0001)	<DL		<DL	<DL	0.0013	0.0045	0.0001	7.4%	
Te	<DL	<DL	<DL	<DL	<DL	<DL	<DL	<DL	0.0650	0.2167	N/A		
Th	<DL	<DL	<DL	<DL	<DL	<DL	<DL	<DL	0.1658	0.5526	N/A		
Tl	<DL	<DL	<DL	<DL	<DL	<DL	<DL	<DL	0.0121	0.0404	N/A		
U	<DL	<DL	<DL	<DL	<DL	<DL	<DL	<DL	3.1009	10.3364	N/A		
V	<DL	<DL	<DL	<DL	<DL	<DL	<DL	<DL	1.3258	4.4192	N/A		
Zn	<DL	<DL	<DL	<DL	<DL	<DL	<DL	<DL	0.0107	0.0357	N/A		
Zr	<DL	<DL	<DL	<DL	<DL	<DL	<DL	<DL	(0.0005)	0.0046	0.0154	N/A	
Bi	N/A			N/A			N/A	N/A	0.0101	0.0337	N/A		

* Methods blank - average sample weight used to calculate wt%.

11/05/90

3-5-91
G/Sample

TABLE 11.1: SST Core 16, Core Composite Water Leach Anion Analysis

Sample: 90-4180
09/19/90

2-13

	C1 (mg/kg)	C2 (mg/kg)	RPD	True (ug/mL)	C4--> (ug/mL)	C3 Spk (mg/kg)	C3 (mg/kg)	% Spk Rec	C5 (c) (mg/kg)
F	1940	2010	3.5%	50	58	575	2710	127.8%	<19
Cl	1430	1440	0.7%	100	110	1080	2620	109.7%	<19
NO2	10300	10300	0.0%	1000	1014	9990	21300	110.1%	<37
NO3	167000	170000	1.8%	5000	5328	52500	226000	109.5%	<37
PO4	23600	24300	2.9%	1500	1393	13700	36100	88.7%	<37
SO4	11100	11200	0.9%	500	542	5340	17000	109.6%	<37
TIC	828	742	11.0%						<94
TOC	457	407	11.6%						168

- (a) The spike's measured concentration has been used to calculate the quantity of spike added in mg/kg.
- (b) The % spike recovery is valid only if the spike level is over 20% of the sample's base value.
- (c) The average Wt-gm of Sample 1 & 2 is used to calculate blank in mg/kg.

3-5-a
Chumult

TABLE 12: SST Core 16, Other Inorganic Results

<u>Analysis</u>	<u>Sample Number</u>	<u>mg/kg</u>
AA - As	90-4180-B-1	<2
	-B-2	<2
	-B-5	<2
- Se	90-4180-B-1	(a) \bar{x}
	-B-2	(a)
	-B-5	<2
- Pb	90-4180-B-1	188 \bar{x}
	-B-2	182
	-B-5	<2
Chromium (VI)	90-4180-C-1	31.0 \bar{R}
	-C-2	31.8
	-C-5	<18.0
Mercury	90-4180-D-1	0.59 \bar{x}
	-D-2	0.61
	-D-3	1.08
	-D-4	--
	-D-5	0.09
Ammonia	90-4180-C-1	352.1 \bar{x}
	-C-2	376.0
	-C-5	5.6

(a) Analyte suppression due to matrix effect observed on final dilution runs.

RCRA LEVEL C QC

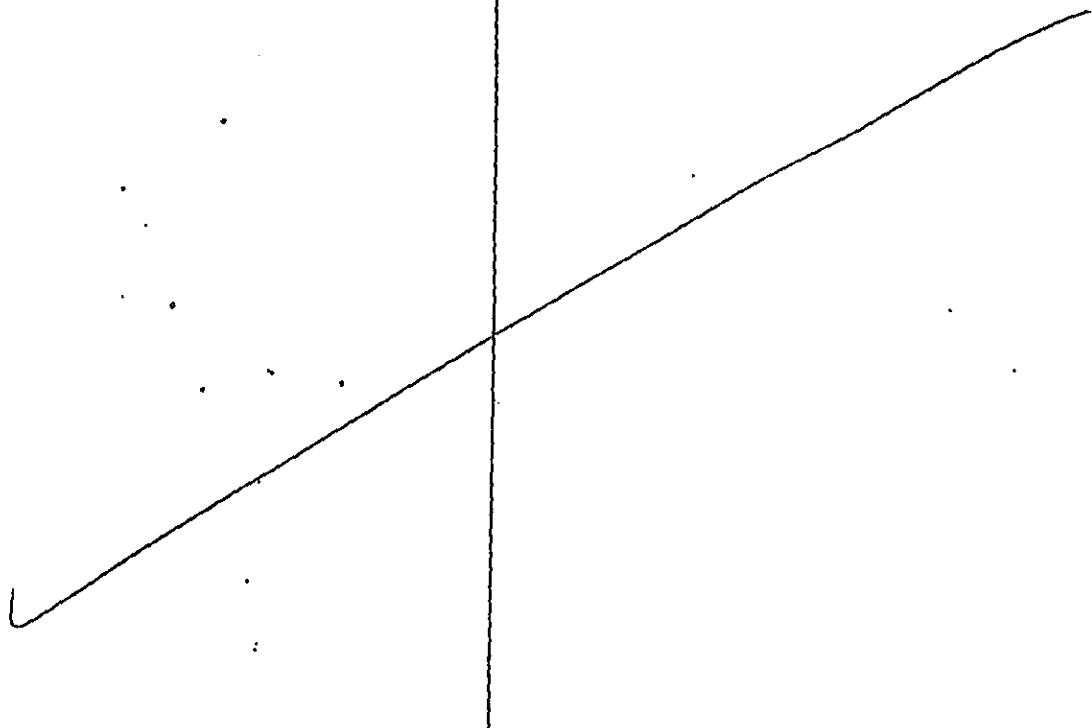
Name C.J. Simiele Date 3-5-91

QC check: Holding Time

Comments: ICP (fusion) holding time of six months was met.

Action: None,

sample # constituent value/qual | sample # constituent value/qual



— of —

RCRA LEVEL C QC

Name C.J. Simiele Date 3-5-91

QC check: Calibration

COMMENTS: ICP (fusion) initial and continuing calibration standards are out of $\pm 10\%$ control limits for ICP run # 2033 for P (12%). Affected samples are 90-3619-A-1 and 90-3620-A-1.

ACTION: Qualify associated samples as per OSM guidelines.

sample #	constituent	value/qual
90-3619-A-1	P	J
90-3620-A-1	P	J

sample #	constituent	value/qual
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— of —

ICRA LEVEL C QC

Name C.J. Simiele Date 3-5-91QC check: Analytical BlankCOMMENTS: Possible contaminants detected in ICP^{for three}
(fusion) method blanks. Associated samples are:90-~~3617-A-1~~ → 90-3618-A-1 for Ca, Mg, Zn; 90-3619-A-1 & 90-3620-A-1
for Ca, Mg, Mn & Zn; and 90-4178-A-1 & 90-4179-A-1 for Ca, Cu, Mg,
Mn & Zn. 90-4179-A-1 for Ba also.ACTION: Qualify associated samples as per OSM
guidelines.

sample #	constituent	value/qual	sample #	constituent	value/qual
90-3617-A-1	Ca	u	90-4178-A-1	Ca	u
	Mg	↓		Cu	↓
	Zn	↓		Mg	↓
90-3618-A-1	Ca	u		Mn	↓
	Mg	↓		Zn	↓
	Zn	↓	90-4179-A-1	Ba	u
90-3619-A-1	Ca	u		Ca	↓
	Mg	↓		Cu	↓
	Mn	↓		Mg	↓
	Zn	↓		Mn	↓
90-3620-A-1	Ca	u		Zn	↓
	Mg	↓			
	Mn	↓			
	Zn	↓			

RCRA LEVEL C QC

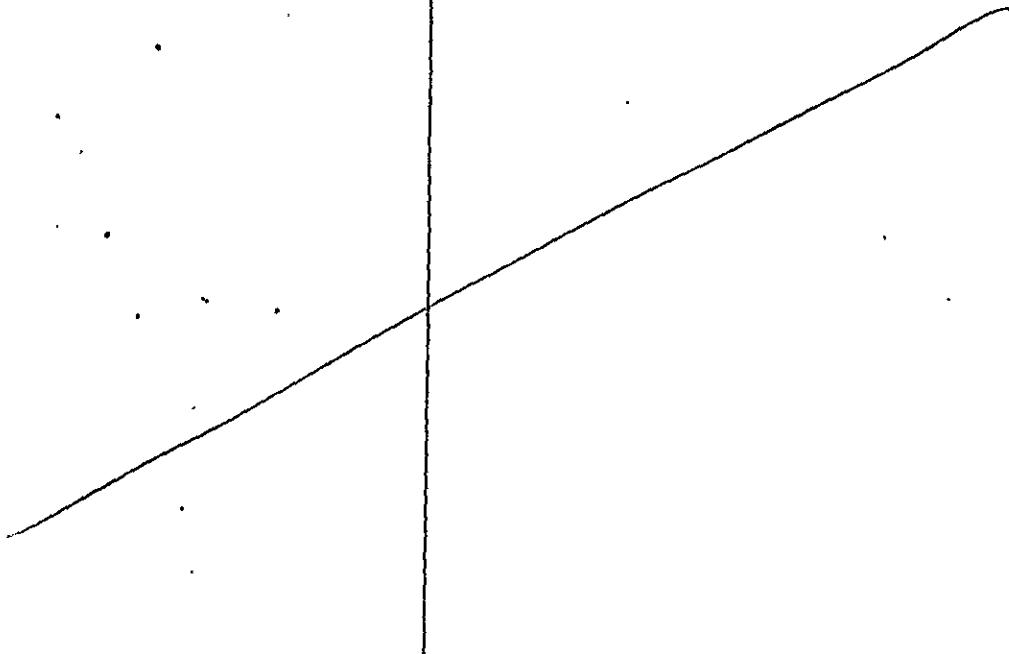
Name C.J. Simiele Date 3-5-91

QC check: LCS

COMMENTS: No LCS data provided with data package.

ACTION: None

sample # constituent value/qual sample # constituent value/qual



— of —

BCRA LEVEL C QC

Name C.J. Simola Date 3-5-91

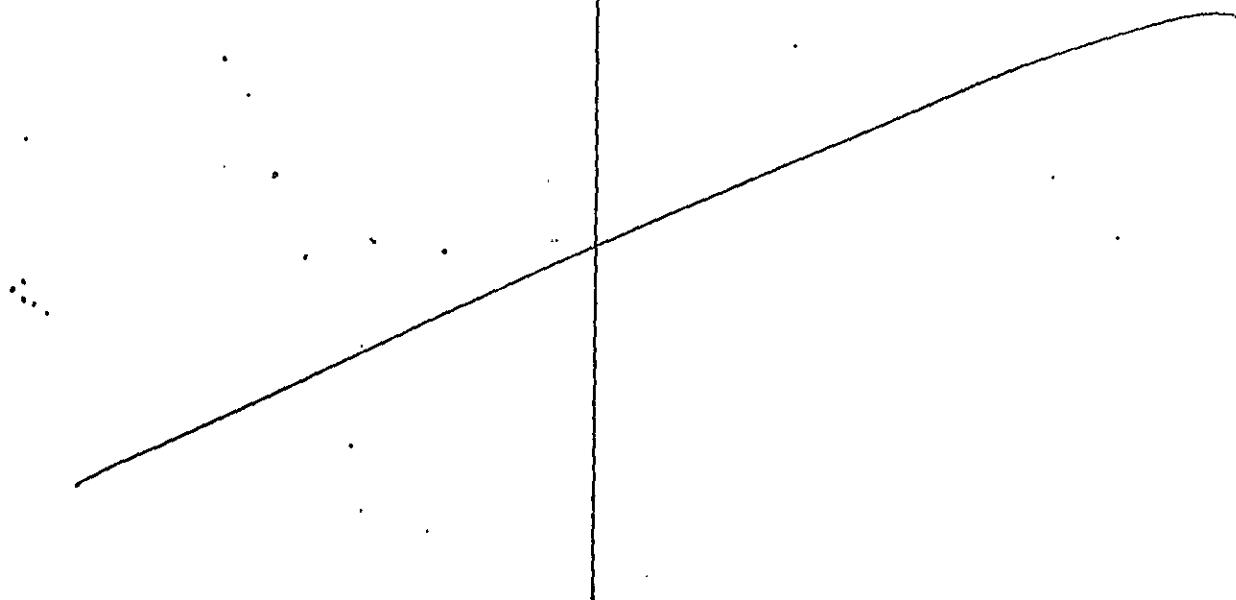
QC check: ICS

COMMENTS: No ICS data provided with data package.

ACTION: None

sample # constituent value/qual

sample # constituent value/qual



 of

RCRA LEVEL C QC

Name C.J. Simiele Date 3-5-91

QC check: Matrix Spikes

COMMENTS: No matrix spikes were run on the ICP (fusion) samples.

ACTION: Qualify associated samples as per OSMI guidelines.

sample #	constituent	value/qual
90-3617-A-1		
90-3618-A-1		
90-3619-A-1		
90-3620-A-1		
90-4178-A-1		
90-4179-A-1		

All elements
for all
samples R

sample #	constituent	value/qual

ICBA LEVEL C QC

Name C.J. Simiele Date 3-5-91

qc check: Duplicate Analyses

COMMENTS: ICP(fusion) duplicate analysis RPDs

are out of $\pm 20\%$ Control Limits for 90-3617-A-1
for Cr (21.3%), 90-3620-A-1 for Mn (23%) & Zn (26%);
90-4179-A-1 for Ba (145%), Ca (39%), Mg (22%), Mn (23%)
& Zn (32%)

ACTION: Qualify associated samples as per OSRM
guidelines.

sample #	constituent	value/qual
90-3617-A-1	Cr	J
90-3620-A-1	Mn	
	Zn	
90-4179-A-1	Ba	
	Ca	
	Mg	
	Mn	
	Zn	

sample # constituent value/qual

Name C.J. Simiele

Date 3-5-91

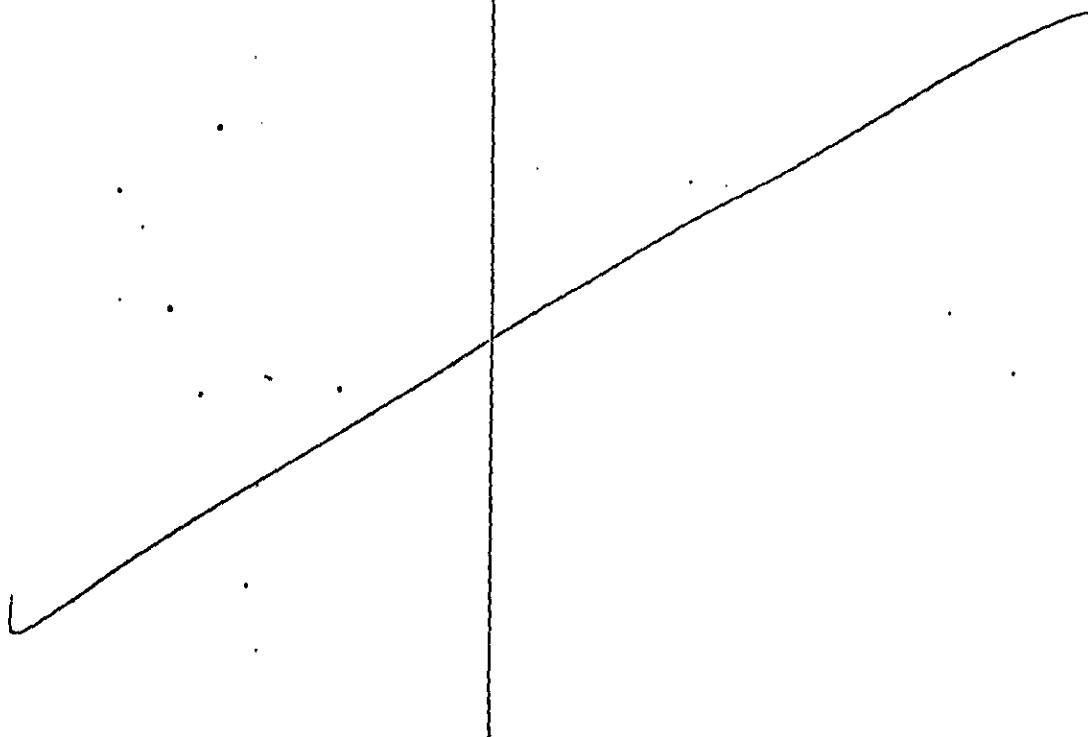
QC check: Holding Time

COMMENTS: ICP(acid) holding time of 10 months
was met.

ACTION: None

sample # constituent value/qual

sample # constituent value/qual



____ of ____

Name C.J. Simiele

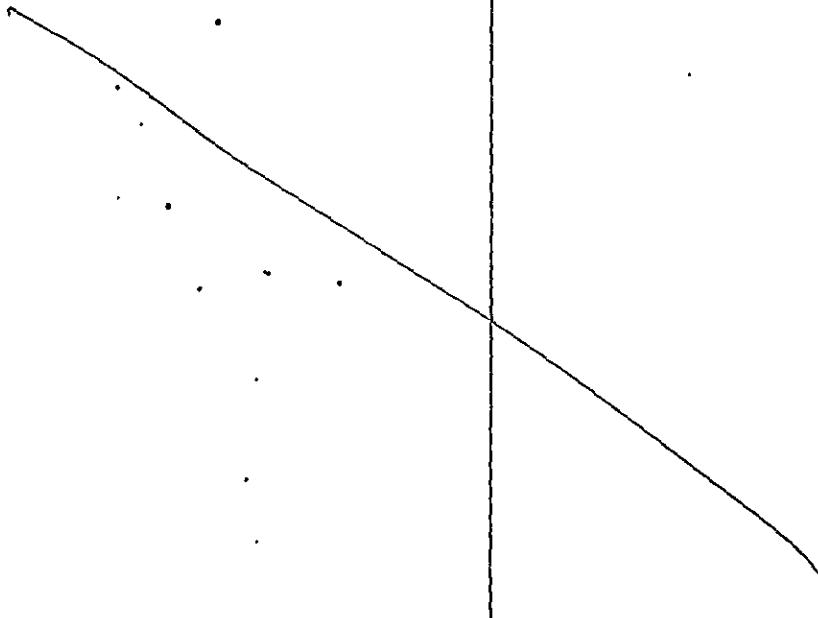
Date 3-5-91

QC check: Calibration

COMMENTS: ICP(Arcd) Calibration standards are all within $\pm 10\%$ control limits. Calibration frequency met.

ACTION: None

sample # constituent value/qual sample # constituent value/qual



____ of ____

BCRA LEVEL C QC

Name C.J. Simiele

Date 3-5-91

QC check: Analytical Blank

COMMENTS: Possible Contaminants detected in
ICP(Acid) method blank. Assayed sample
IS 90-4180-A-1 for B, Ca & Mg.

ACTION: Qualify assayed samples as per OSM
guidelines

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36

sample # constituent value/qual
90-4180-A-1 B u
L Ca
Mg L

sample # constituent value/qual

— of —

RCRA LEVEL C QC

Name C.J. Simiele

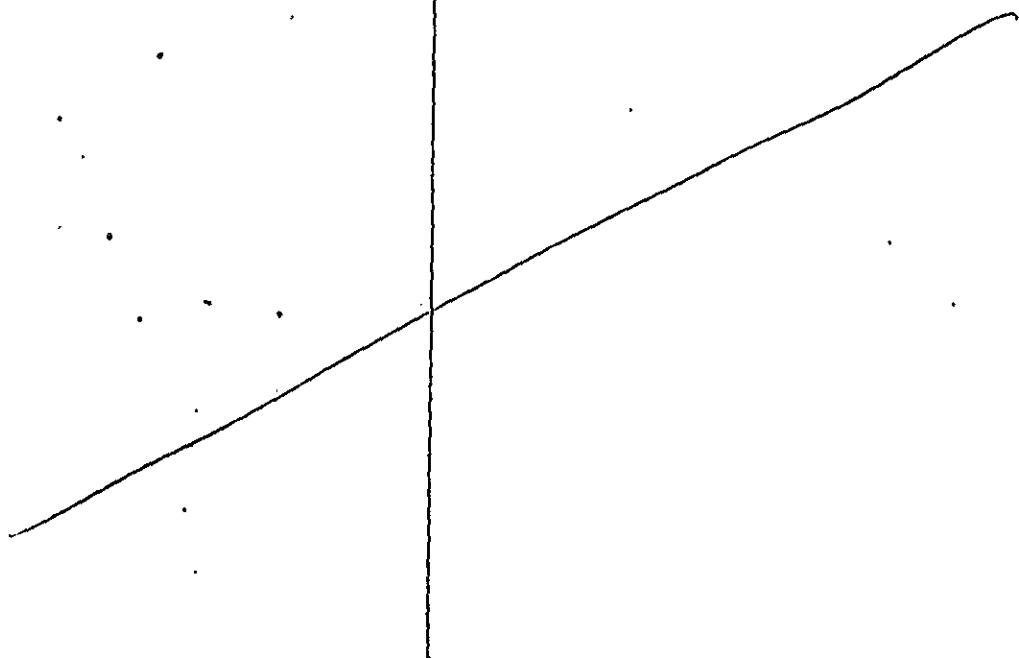
Date 3-5-91

QC check: LCS

COMMENTS: No LCS data provided with data package.

ACTION: None

sample # constituent value/qual sample # constituent value/qual



 of

OCRA LEVEL C DC

Name C.J. Simola Date 3-5-91

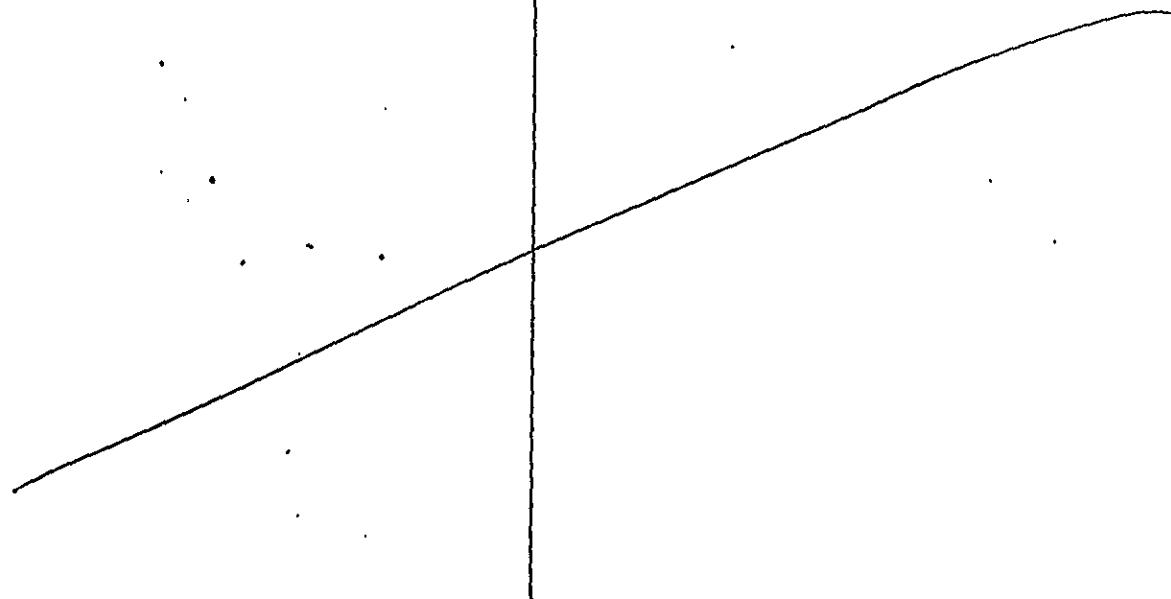
QC check: ICS

COMMENTS: No ICS data provided with data package.

ACTION: None

sample # constituent value/qual

sample # constituent value/qual



RCRA LEVEL C QC

Name C.J. Simiele

Date 3-5-91

QC check: Matrix Spike

COMMENTS: ICP(acid) matrix spike % Rec are out of
±25% control limits for Co (131%) & Se (55%).
In sample 90-4180-A-1

ACTION: Qualify associated samples as per
DSM guidelines.

sample #	constituent	value/qual	sample #	constituent	value/qual
90-4180-A-1	Co	UJ			
	Se	V			

— of —

RCRA LEVEL C QC

Name C.J. Simola Date 3-5-91

QC check: Duplicate Analyses

COMMENTS: ICP(Acid) duplicate analysis RPD's are
out of $\pm 20\%$ control limits for La (23%);
Si (28%) & Ti (32%) in sample 90-4180-A-1

ACTION: Qualify associated sample as per OSM
guidelines

sample #	constituent	value/qual	sample #	constituent	value/qual
90-4180-A-1	Si	J			
	Ti	V			

— of —

RCRA LEVEL C QC

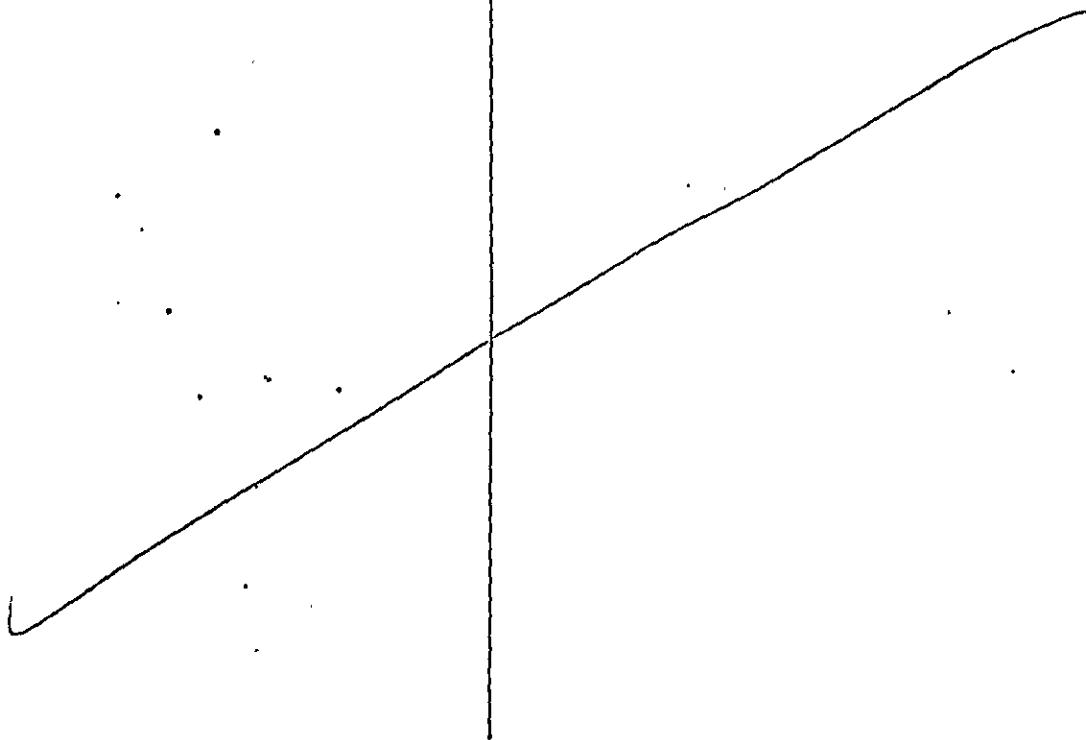
Name C.J. Simiele Date 3-5-91

QC check: Holding Time

COMMENTS: ICP(Water) holding time of six months was met.

ACTION: None

sample # constituent value/qual | sample # constituent value/qual



____ of ____

BGRAL LEVEL C QC

Name C.J. Simiele

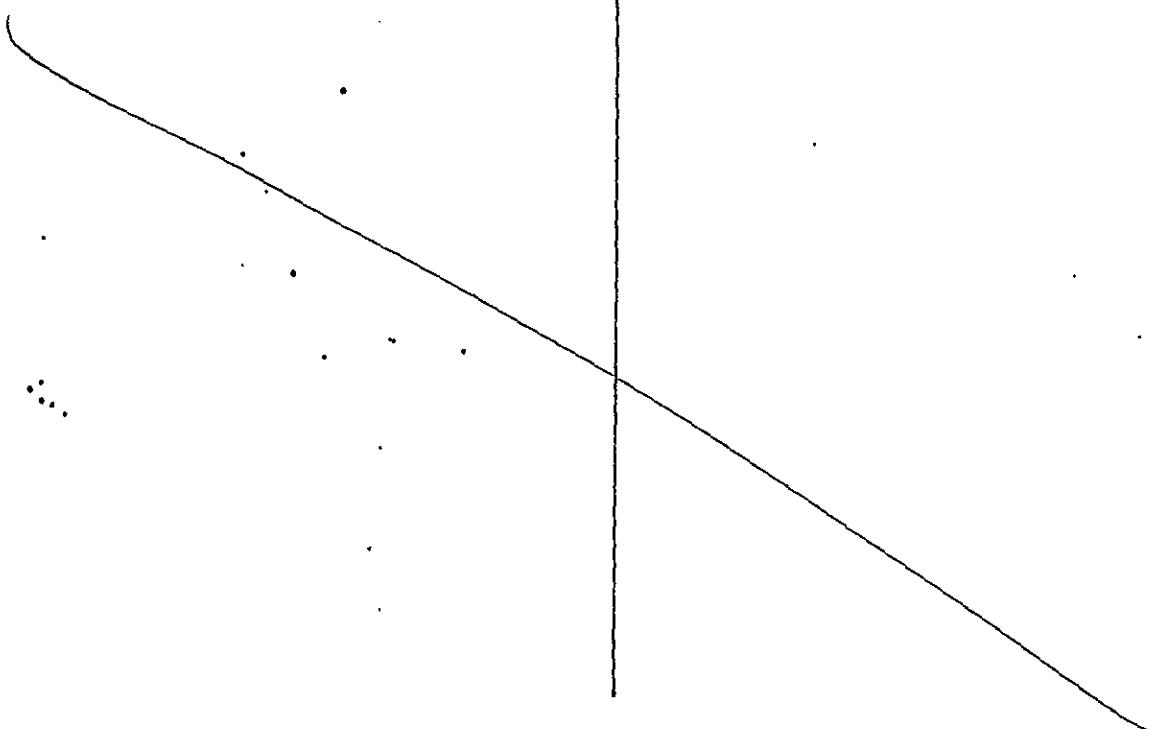
Date 3-5-91

QC check: Calibration

COMMENTS: ICP(Waller) calibration standards
are all within in $\pm 10\%$ control limits.
Calibration frequency was met.

ACTION: None

sample # constituent value/qual | sample # constituent value/qual



 of

DCBA LEVEL C QC

Name C.J. Simiele

Date 3-5-91

QC check: Analytical Blank

COMMENTS: ICP (waller) - Possible Contaminants
detected in method blank for Ca & Mg.

ACTION: Qualify associated samples as per
DSM guidelines.

sample # constituent value/qual
90-4180-C-1 Ca u
L Mg L

sample # constituent value/qual

— of —

RCRA LEVEL C QC

Name C.J. Simiele

Date 3-5-91

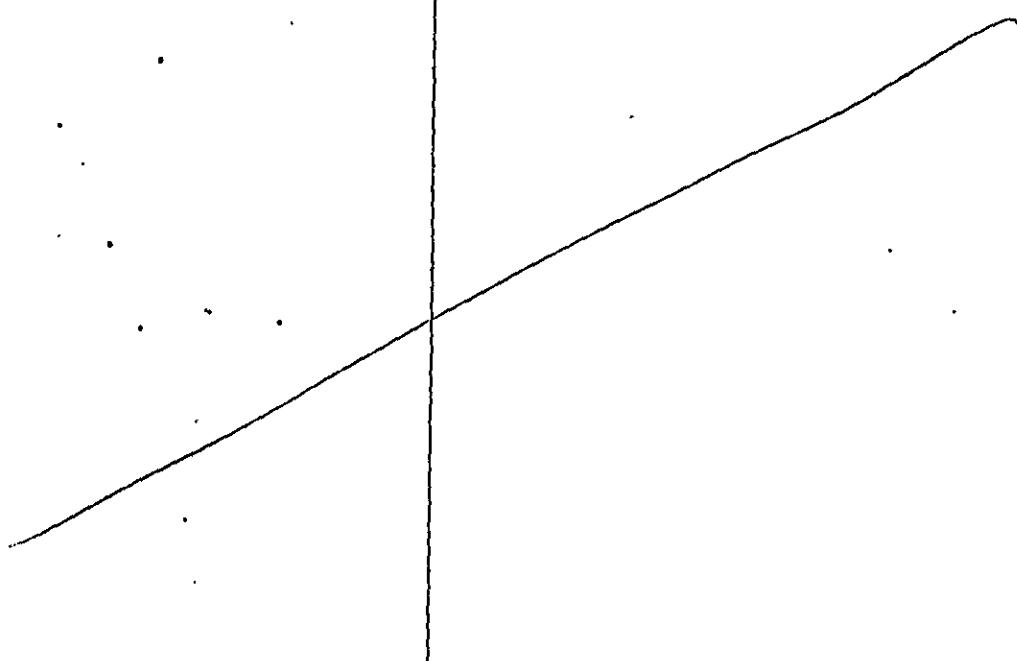
QC check: LCS

COMMENTS: No LCS data provided with data package.

ACTION: None

sample # constituent value/qual

sample # constituent value/qual



 of

RCRA LEVEL C QC

Name C.J. Simola Date 3-5-91

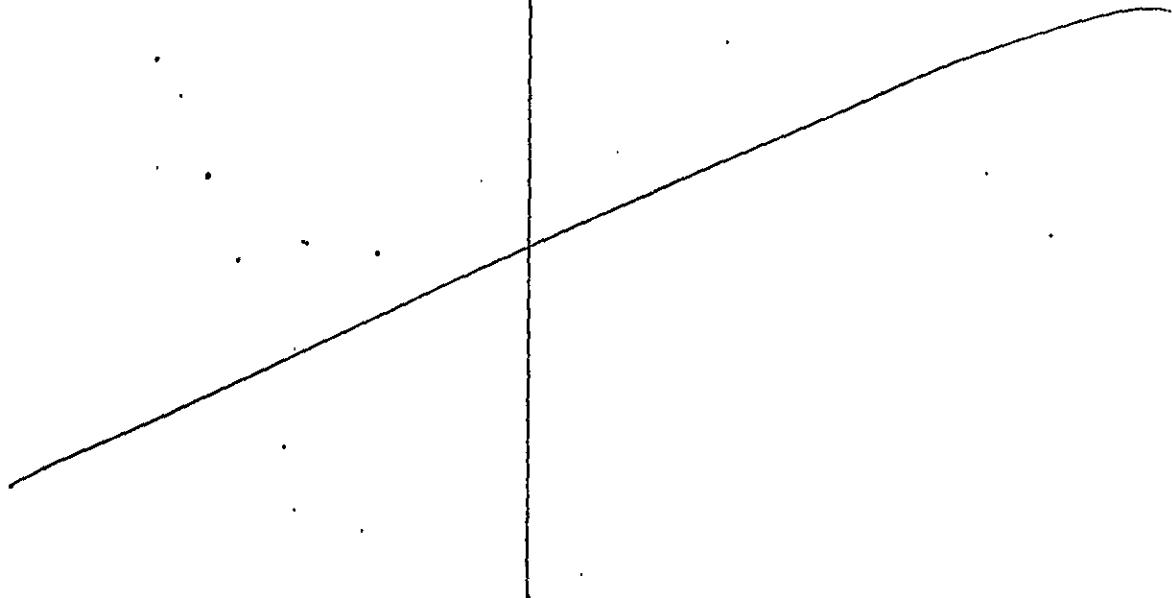
QC check: ICS

COMMENTS: No ICS data provided with data package.

ACTION: None

sample # constituent value/qual

sample # constituent value/qual



— of —

RCRA LEVEL C QC

Name C.J. Simiele

Date 3-5-91

QC check: Matrix SPIKE

COMMENTS: No matrix spike analyzed with ICP (Waller Wash).

ACTION: Qualify associated samples as per DSM guidelines

sample # constituent value/qual
90-4180-C-1 All ICP elements R

sample # constituent value/qual

— of —

RCRA LEVEL C QC

Name C.J. Simola

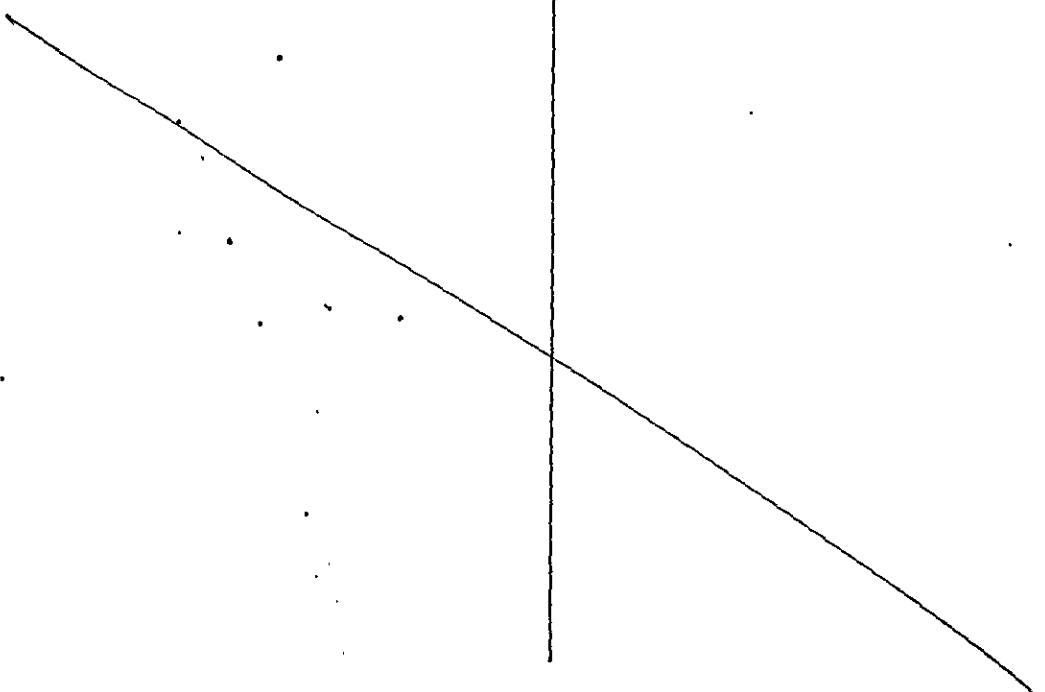
Date 3-5-91

QC Check: Duplicate Analyses

COMMENTS: All ICP (WATER) duplicate analyses
RPDs are within $\pm 20\%$ control limits

ACTION: None

sample # constituent value/qual | sample # constituent value/qual



— of —

BCBA LEVEL C QC

Name C.J. Simiele

Date 3-5-91

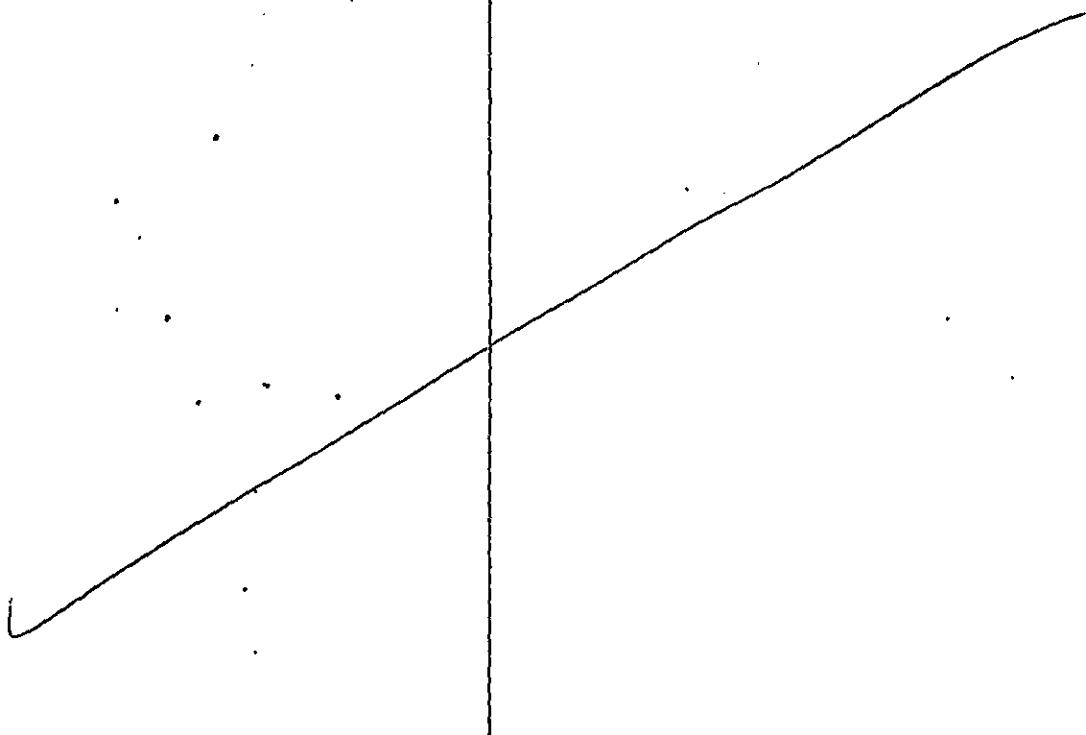
QC check: Holding Time

COMMENTS: Holding Times of 2 days for NO₃ and
28 days for F, Cl, PO₄ & SO₄, were exceeded by
147 days & 121 days respectively.

ACTION: None

sample # constituent value/qual

sample # constituent value/qual



____ of ____

REMA LEVEL C DC

Name C.J. Simola

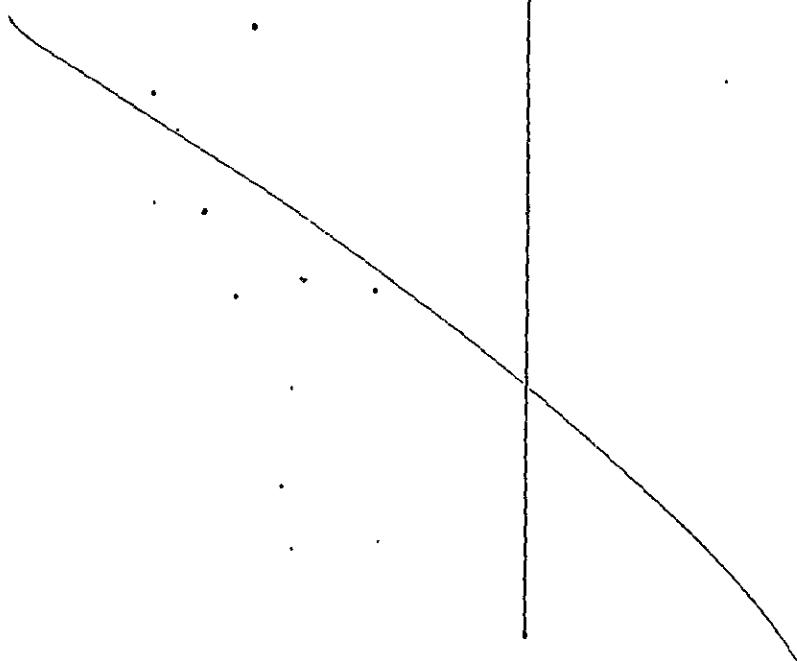
Date 3-5-91

QC check: Calibration

COMMENTS: IC calibration standards are all
within in $\pm 10\%$ Control limits. Calibration
frequency met.

ACTION: None

sample # constituent value/qual | sample # constituent value/qual



____ of ____

DCRA LEVEL C QC

Name C.J. Simiele

Date 3-5-91

QC check: Analytical Blank

COMMENTS: The LC method blank appears to be contaminant free. No A.L. for LC analysis provided with data package

ACTION: None

sample # constituent value/qual

sample # constituent value/qual

— of —

RCRA LEVEL C QC

Name C.J. Simiele

Date 3-5-91

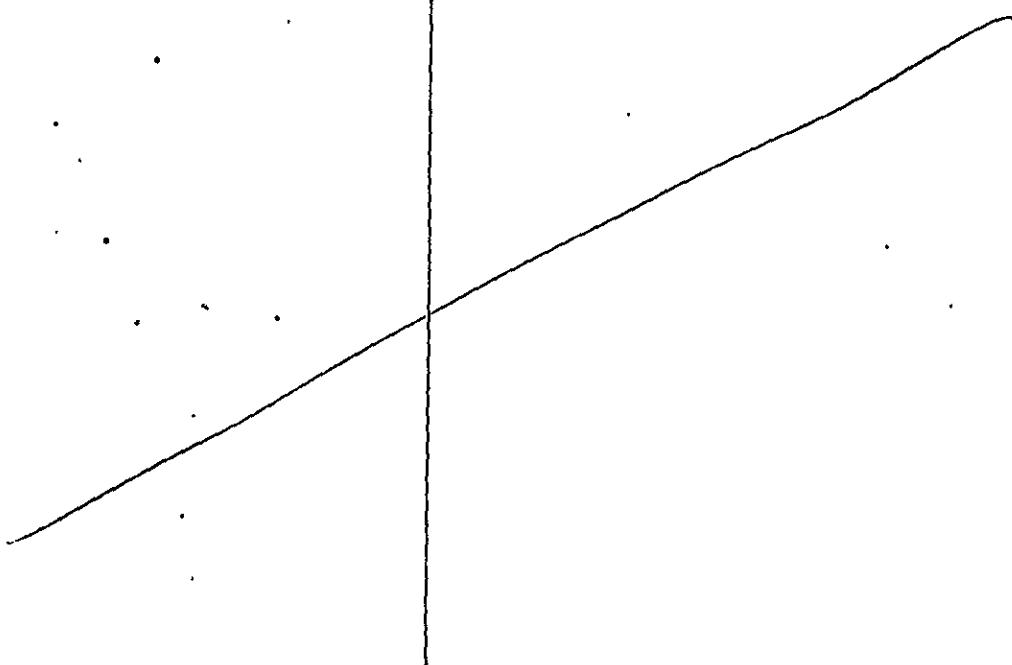
QC check: LCS

COMMENTS: No LCS data provided with data package.

ACTION: None

sample # constituent value/qual

sample # constituent value/qual



____ of ____

RCRA LEVEL C QC

Name C.J. Simiele

Date 3-5-91

QC check: Matrix Spike

COMMENTS: IC matrix spike % Rec is out of
± 25% Control Limits for F(128%),

ACTION: Qualify associated samples as per OSM
guidelines.

sample #	constituent	value/qual	sample #	constituent	value/qual
90-418-C-1	F	J			

____ of ____

RCRA LEVEL C QC

Name C.J. Simola

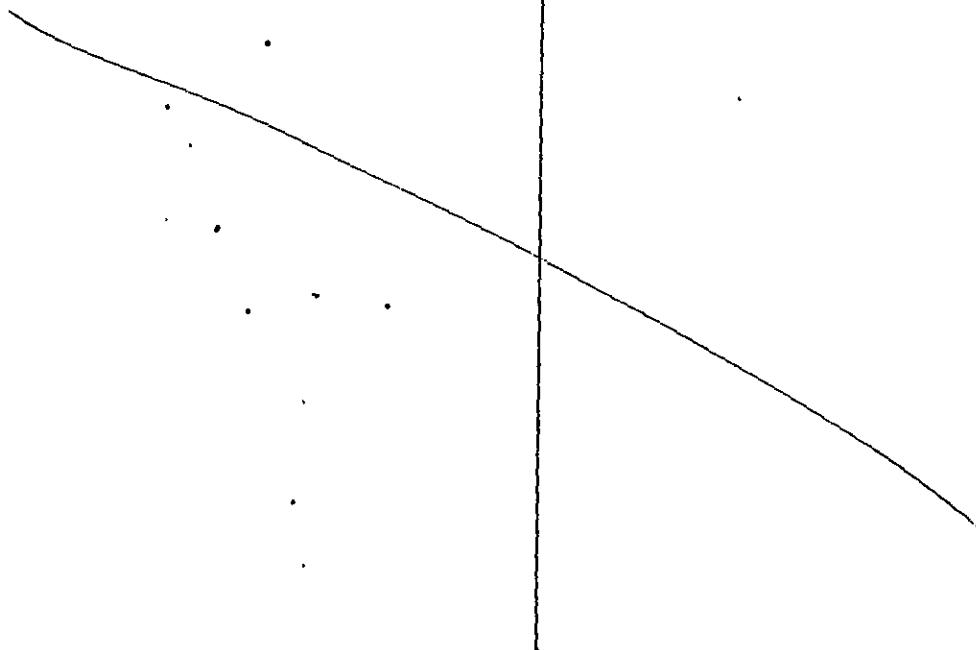
Date 3-5-91

QC check: Duplicate Analyses

COMMENTS: All IC duplicate analysis RPDs are
within $\pm 20\%$ control limits

ACTION: None

<u>sample #</u>	<u>constituent</u>	<u>value/qual</u>	<u>sample #</u>	<u>constituent</u>	<u>value/qual</u>
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____ of ____

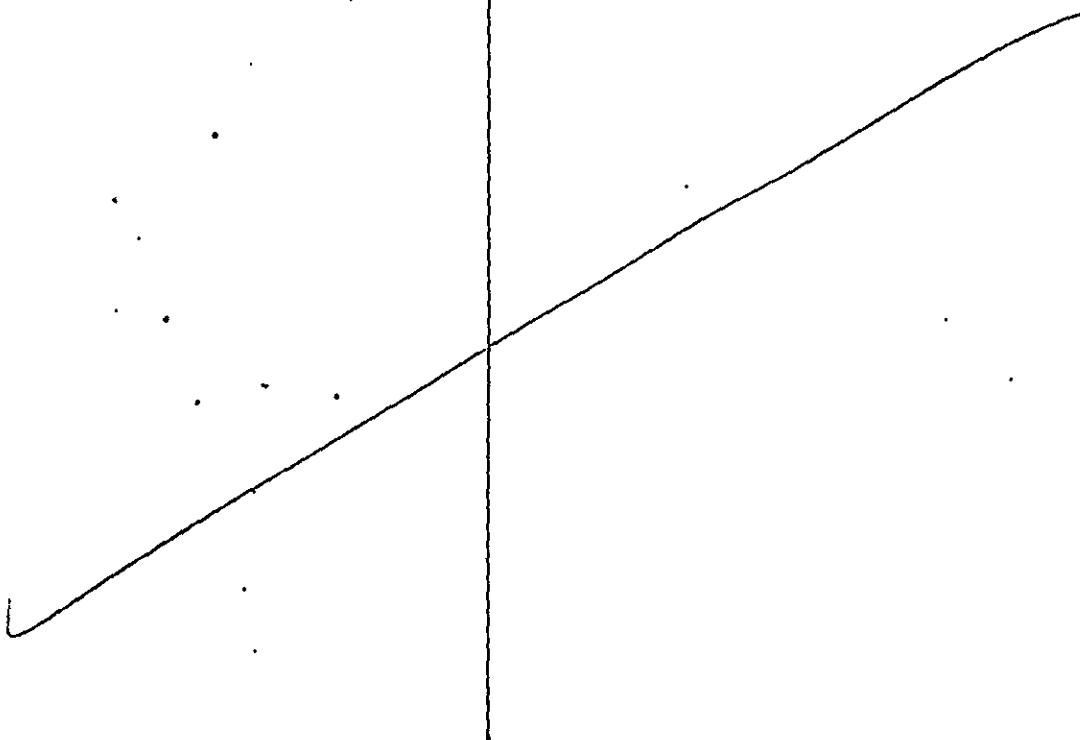
Name C.J. Simiele Date 3-5-91

QC check: Holding Time

COMMENTS: TAC/TIC holding times of 28 days
was exceeded by 115 days

ACTION: None

sample # constituent value/qual | sample # constituent value/qual



____ of ____

RCRA LEVEL C DC

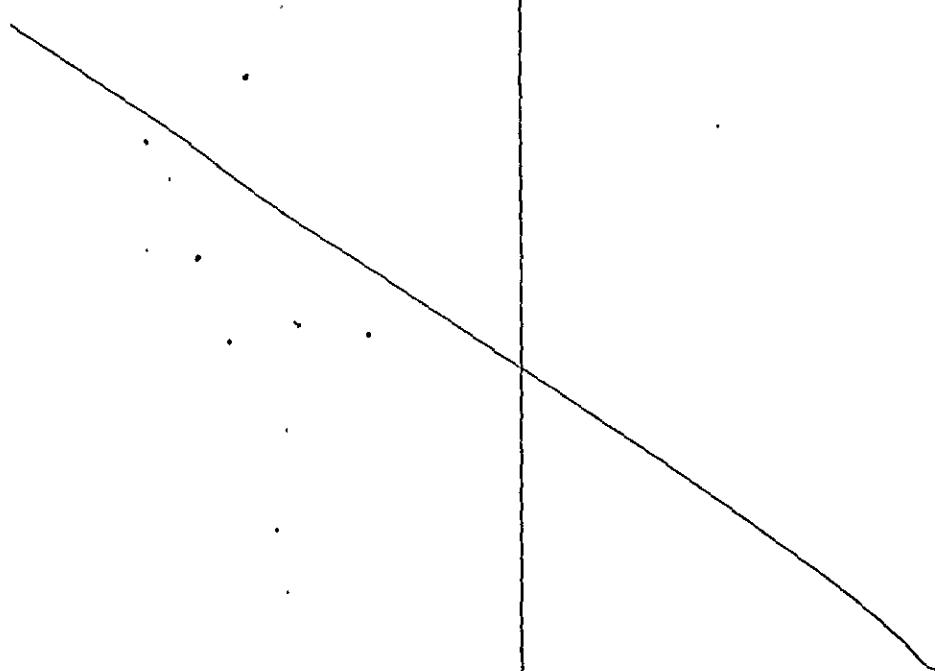
Name C.J. Simiele Date 8-5-91

QC check: Calibration

COMMENTS: All TOC/TIC calibration standards
are within in $\pm 10\%$ control limits. Calibration
frequency met.

ACTION: None

sample # constituent value/qual sample # constituent value/qual



____ of ____

RCRA LEVEL C QC

Name C.J. Simiele Date 3-5-91

QC check: Analytical Blank

COMMENTS: Possible Contaminants checked in
TOC method blank. (No D.L. provided with
TOC/TIC data)

ACTION: Qualify associated sample as per
OSM guidelines.

sample # constituent value/qual sample # constituent value/qual

90-4180-C-1 TOC u

— of —

RCRA LEVEL C QC

Name C.J. Simiele

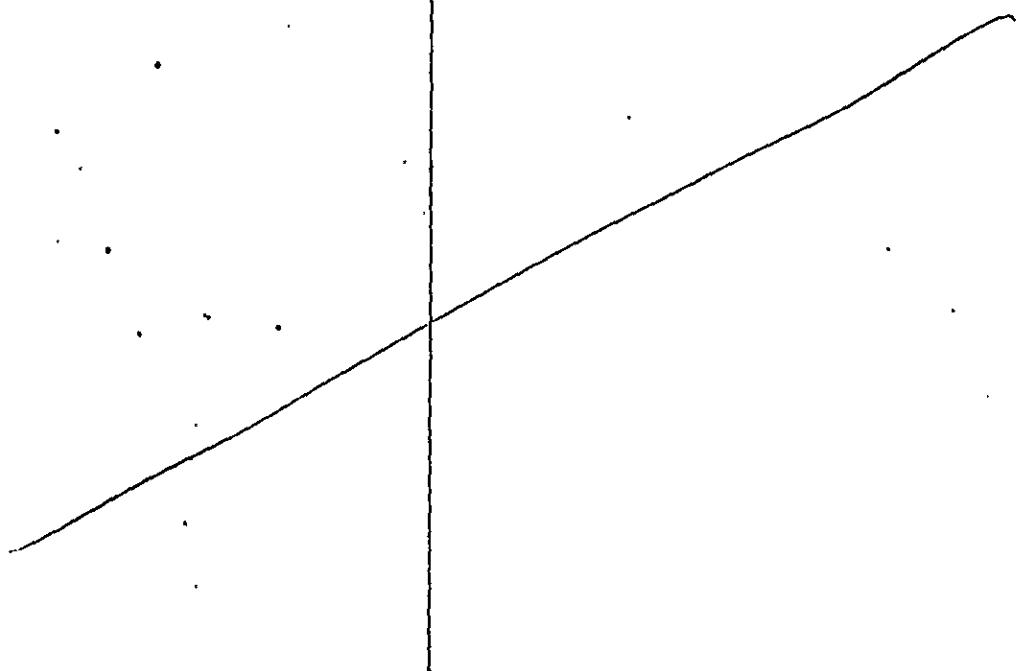
Date 3-5-91

QC Check: LCS

COMMENTS: No LCS data provided with data package.

ACTION: None

sample # constituent value/qual | sample # constituent value/qual



 of

RCRA LEVEL C QC

Name C.J. Simiele

Date 3-5-91

QC check: Matrix Spike

COMMENTS: No matrix spike analyses performed with TOC/TIC samples.

ACTION: Qualify all associated samples as per DSM guidelines

sample #	constituent	value/qual
90-4180-C-1	TOC	R
L	TIC	R

sample #	constituent	value/qual
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____ of ____

RCRA LEVEL C QC

Name C.J. Simola Date 3-5-91

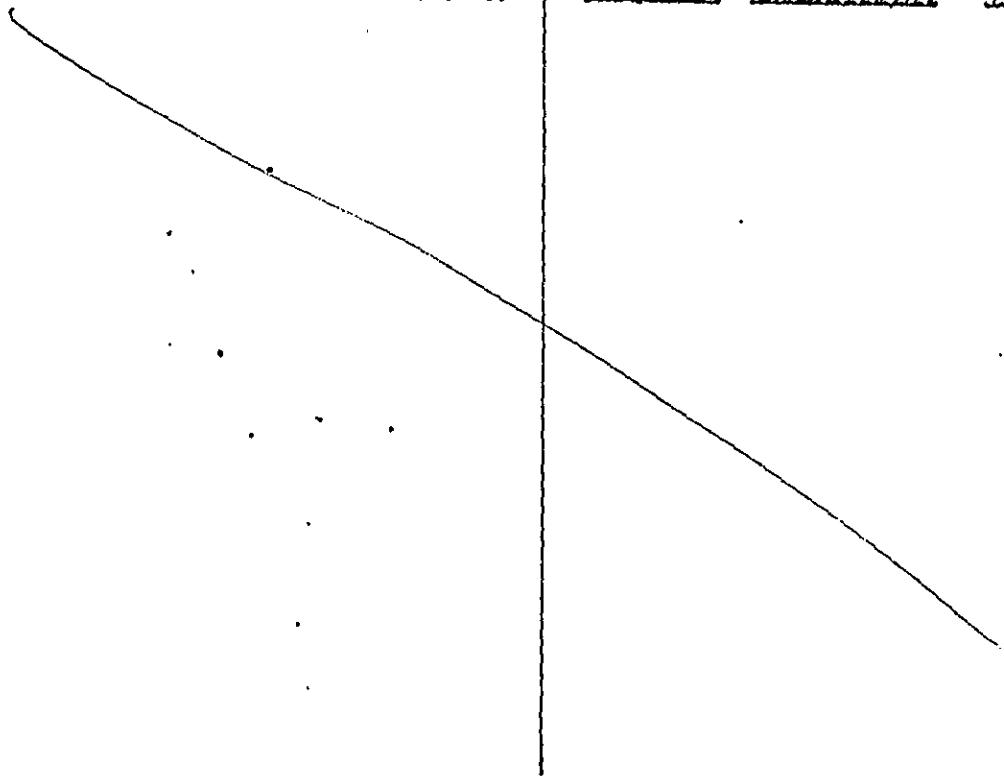
QC check: Duplicate Analyses

COMMENTS: All TOC/TIC duplicate analyses

RPDs are within $\pm 20\%$ control limits.

ACTION: None

sample #	constituent	value/qual	sample #	constituent	value/qual



 of

ACRA LEVEL C DC

Name C.J. Simiele

Date 3-5-91

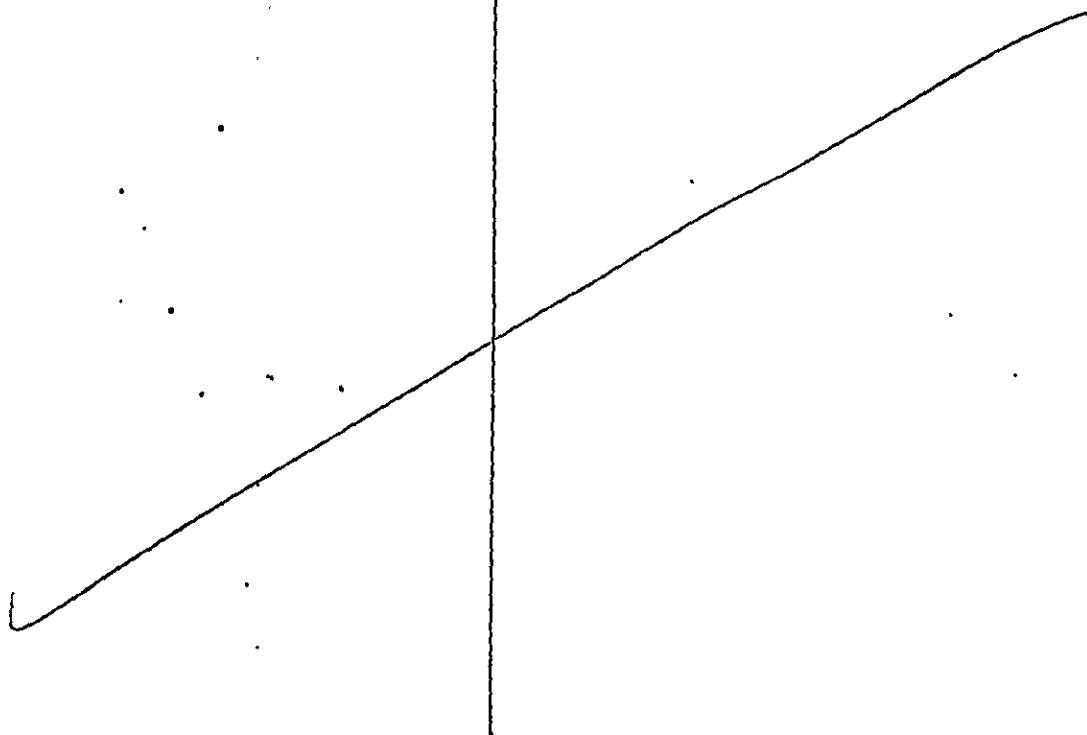
QC check: Holding Time

COMMENTS: Holding times for As, Se & Pb of six months were all met.

ACTION: None

sample # constituent value/qual

sample # constituent value/qual



 of

RCRA LEVEL C QC

Name C.J. Simiele

Date 3-5-91

QC check: Calibration

COMMENTS: All A.A.(As) initial & continuing calibration standards are within $\pm 10\%$ control limits. One continuing calibration standard out of control limits for Se & Pb each. %Rec = 115 \pm 8% respectively.

ACTION: Qualify associated samples as per DSM guidelines.

sample #	constituent	value/qual
90-4180-B-1	Se	J
	Pb	V

sample #	constituent	value/qual
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RCRA LEVEL C QC

Name C.J. Simiele

Date 3-5-91

QC check: Analytical Blank

COMMENTS: No Contaminants detected in method
blanks for As, Se & Pb. (No D.L. provided with
data package.)

ACTION: None

sample # constituent value/qual | sample # constituent value/qual

RCRA LEVEL C QC

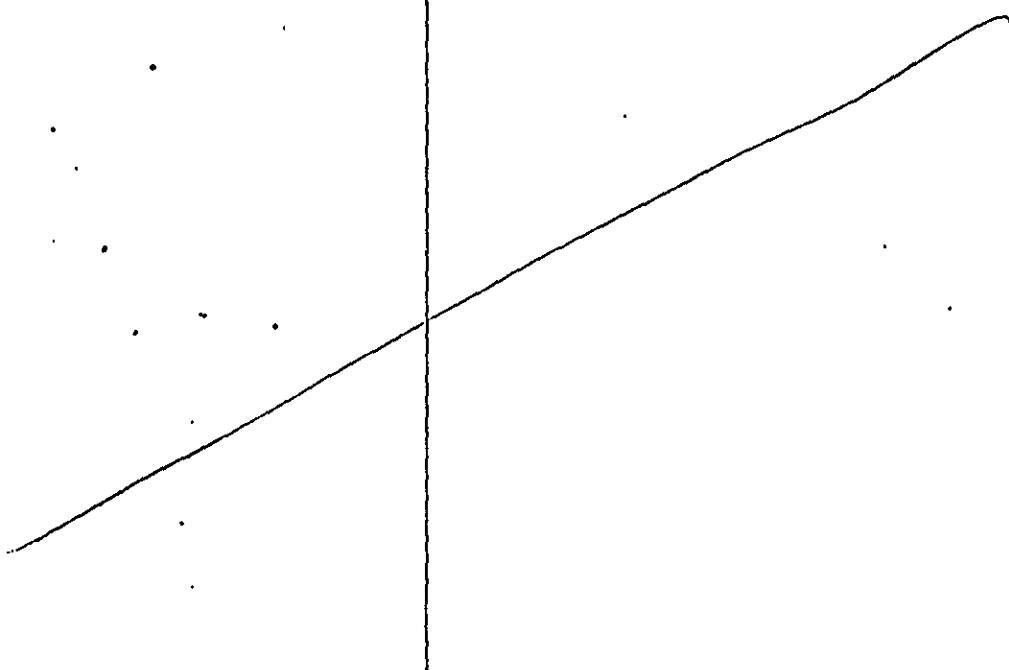
Name C.J. Simiele Date 3-5-91

QC check: LCS

COMMENTS: No LCS data provided with data package.

ACTION: None

sample # constituent value/qual sample # constituent value/qual



____ of ____

DERA LEVEL C QC

Name C.J. Simpler Date 3-5-91

QC check: Matrix Spike

COMMENTS: Se matrix spike % Rec is out of $\pm 25\%$ control limits (168%). As Pb matrix spikes are both within $\pm 25\%$ control limits

ACTION: Qualify associated samples as per OSM guidelines.

sample # constituent value/qual
90-4180-B-1 Se J

sample # constituent value/qual

____ of ____

RCRA LEVEL C QC

Name C.J. Simola

Date 3-5-91

QC check: Duplicate Analyses

COMMENTS: As & Pb duplicate analysis are within
± 20% Control limits. No values provided
for Se analysis, due to matrix interference
problems.

ACTION: None

sample # constituent value/qual | sample # constituent value/qual

 of

BCRA LEVEL C QC

Name C.J. Simiele Date 3-5-91

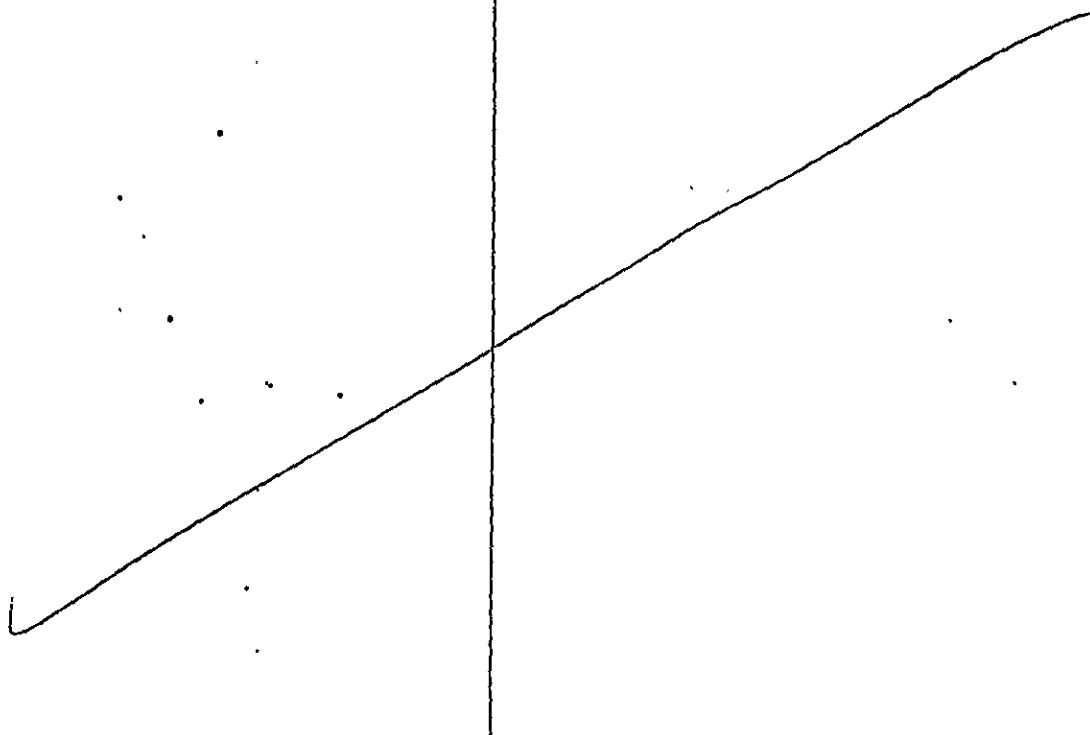
QC check: Holding Time

COMMENTS: (CrCrVI) holding time of 24 hrs was exceeded by 134 days.

ACTION: None

sample # constituent value/qual

sample # constituent value/qual



____ of ____

ICRA LEVEL C QC

Name C.J. Simiele

Date 3-5-91

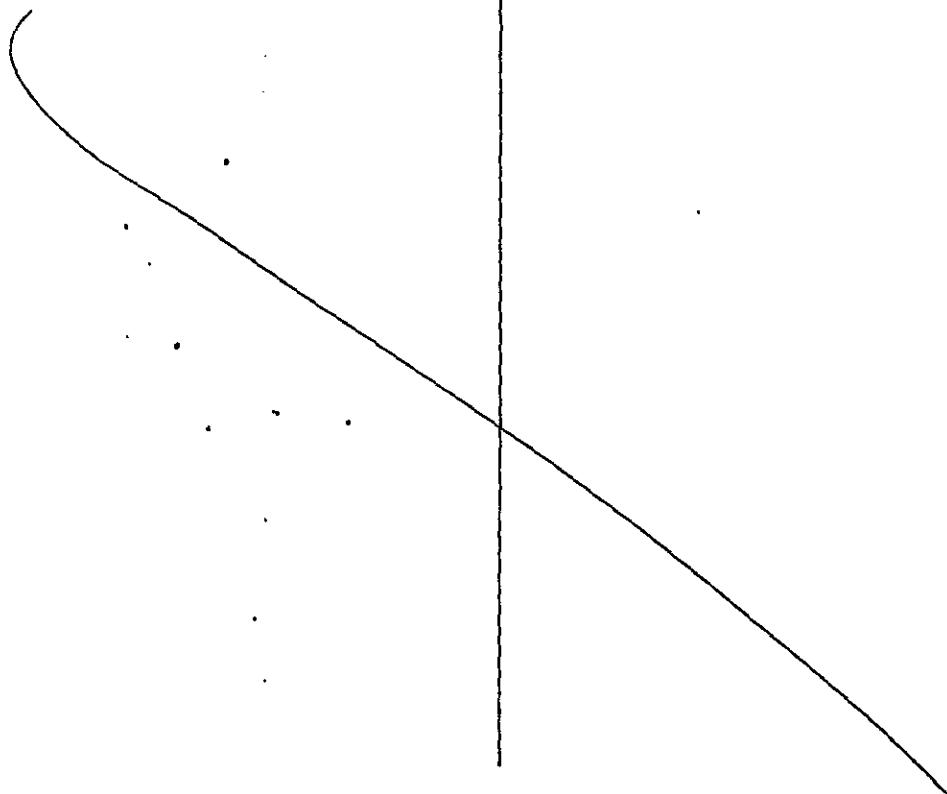
QC check: Calibration

COMMENTS: Crcv1) calibration curve correlation coefficient = 0.9998. Calibration Standard is within $\pm 10\%$ control limits

ACTION: None

sample # constituent value/qual

sample # constituent value/qual



____ of ____

Name C.J. Simiele

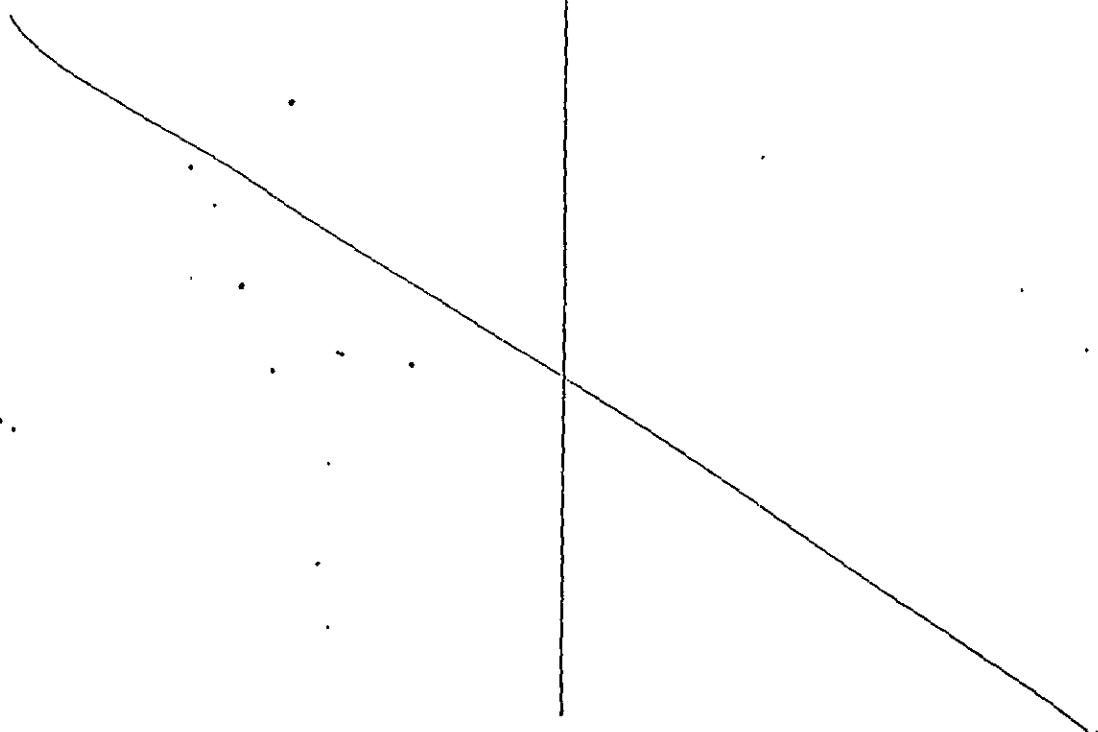
Date 3-5-91

QC check: Analytical Blank

COMMENTS: (Crav) method blank appears to be contaminant free. (No. D.L. were provided with data package.)

ACTION: None

<u>sample #</u>	<u>constituent</u>	<u>value/qual</u>	<u>sample #</u>	<u>constituent</u>	<u>value/qual</u>
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— of —

RCRA LEVEL C QC

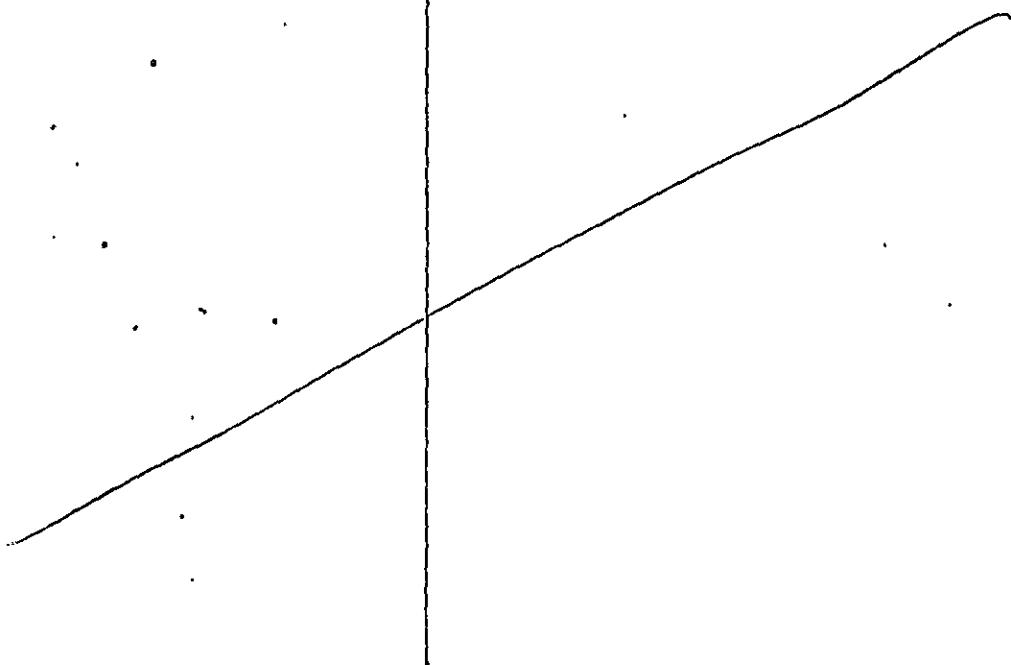
Name C.J. Simiele Date 3-5-91

QC check: LCS

COMMENTS: No LCS data provided with data package.

ACTION: None

sample # constituent value/qual sample # constituent value/qual



____ of ____

RCRA LEVEL C QC

Name C.J. Simpler

Date 3-5-91

QC check: Matrix Spike

COMMENTS: No matrix spike analysis was performed for Cr(VI), due to insufficient sample.

ACTION: Dualify assoulted sample as per DSM guidelines

sample #	constituent	value/qual	sample #	constituent	value/qual
90-4180-C-1	Cr(VI)	R			

RCRA LEVEL C QC

Name C.J. Simiele

Date 3-5-91

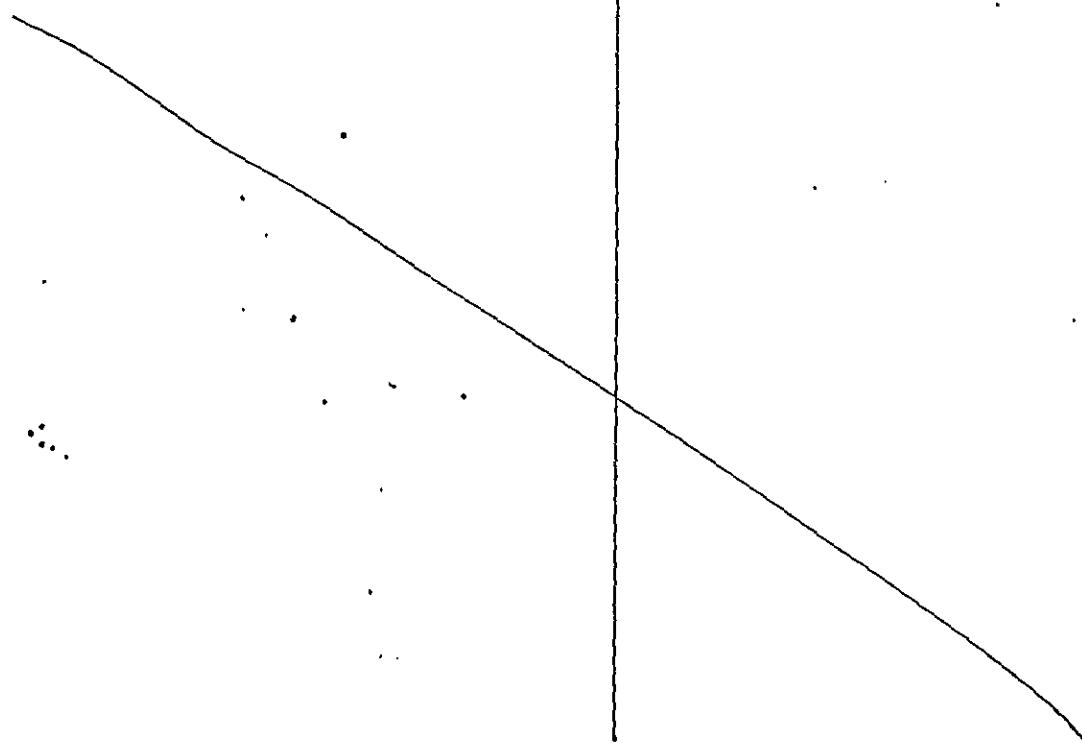
QC check: Duplicate Analyses

COMMENTS: (CrCrV) Duplicate analysis RPD

is within $\pm 20\%$ control limits.

ACTION: None

sample # constituent value/qual | sample # constituent value/qual



 of

DCRA LEVEL E QC

Name C.J. Simiele

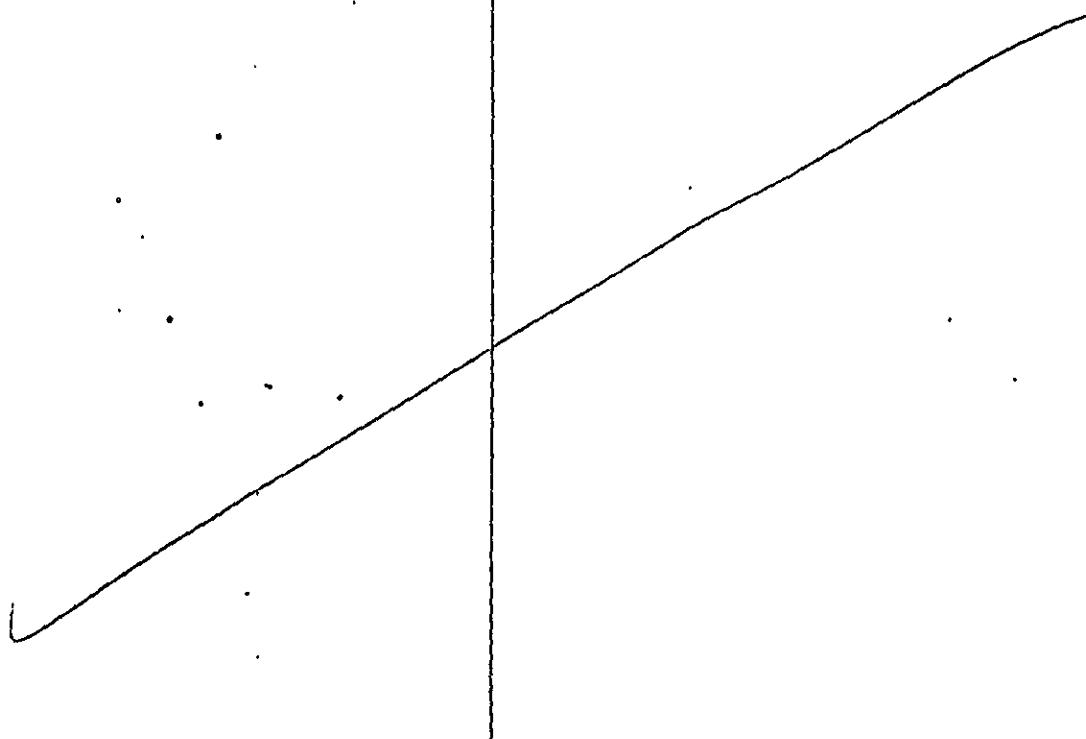
Date 3-5-91

QC check: Holding Time

COMMENTS: NH₃ holding time of 28 days was exceeded by 119 days

ACTION: None

sample # constituent value/qual | sample # constituent value/qual



____ of ____

ICRA LEVEL C QC

Name C.J. Simiele

Date 3-5-91

QC check: Calibration

COMMENTS: NH₃ calibration standards are out of
± 10% control limits (% Rec = 120% ± 120%).

ACTION: Qualify assualled sample as per OSM
guidelines

sample # constituent value/qual
90-4180-L-1 NH₃ J

sample # constituent value/qual

— of —

RCRA LEVEL C QC

Name C.J. Simiele

Date 3-5-91

QC check: Analytical Blank

COMMENTS: No contaminants detected in NH₃ method blank. (No NH₃ D.L. provided with data package.)

ACTION: None

sample # constituent value/qual

sample # constituent value/qual

— of —

RCRA LEVEL C QC

Name C.J. Simiele

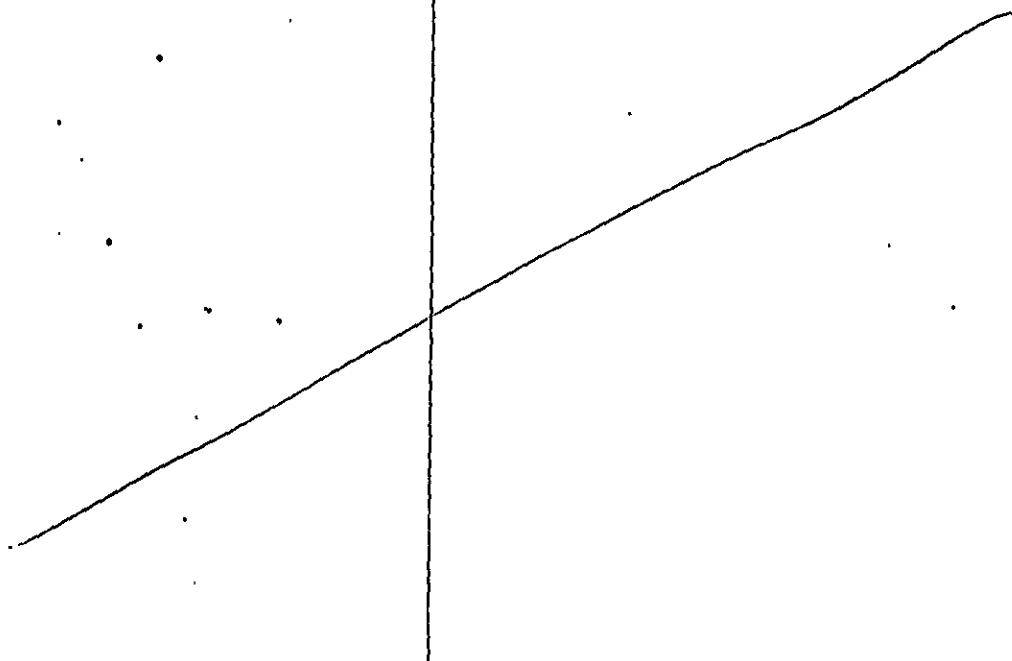
Date 3-5-91

QC check: LCS

COMMENTS: No LCS data provided with data package.

ACTION: None

sample # constituent value/qual | sample # constituent value/qual



 of

RCRA LEVEL C QC

Name C.J. Simiele

Date 3-5-91

QC check: Matrix Spike

COMMENTS: NH₃ matrix spike % Rec. is within
±25% control limits

ACTION: None

sample # constituent value/qual | sample # constituent value/qual

— of —

BCRA LEVEL C QC

Name C.J. Simola

Date 3-5-91

QC check: Duplicate Analyses

COMMENTS: NH₃ duplicate analysis PPD is within
± 20% control limits.

ACTION: None

sample # constituent value/qual | sample # constituent value/qual

 of

DCRA LEVEL C DC

Name C.J. Simiele

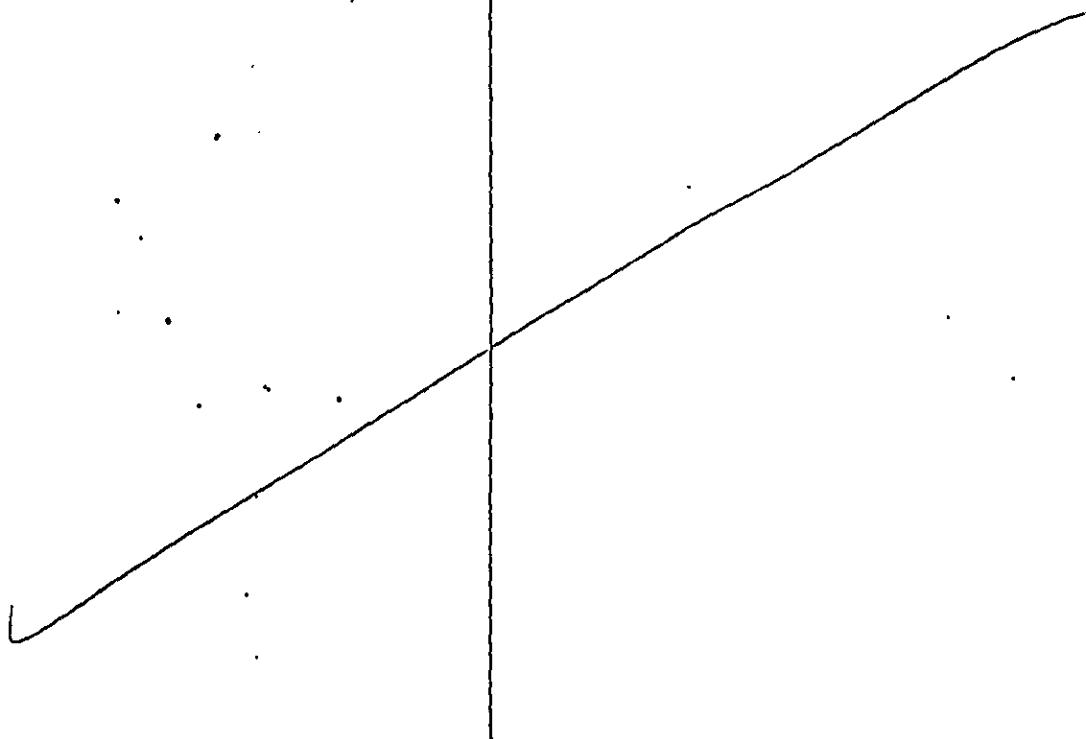
Date 3-5-91

QC check: Holding Time

COMMENTS: Hq holding time of 28 days was exceeded by 148 days

ACTION: None

sample # constituent value/qual | sample # constituent value/qual



 of

ICRA LEVEL C QC

Name C.J. Simiele Date 3-5-91

QC check: Calibration

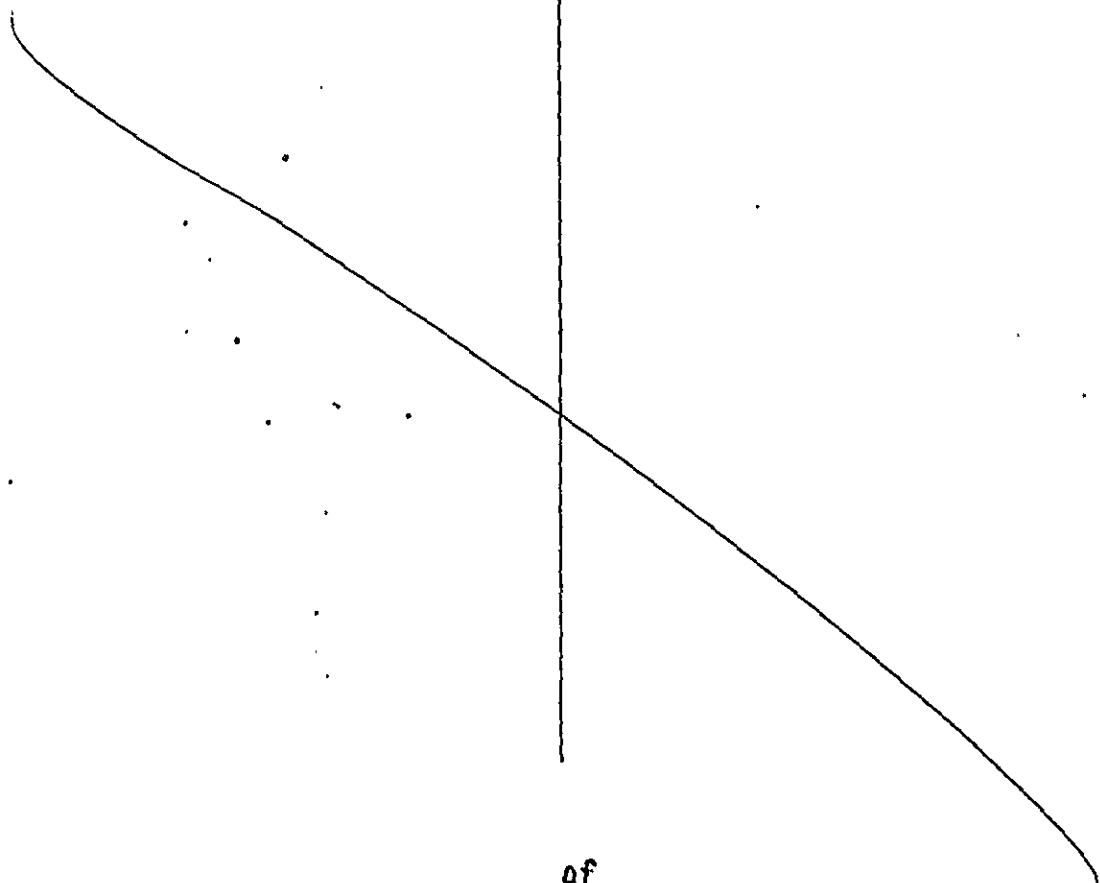
COMMENTS: Hg calibration curve correlation

coefficient = .9995. Calibration check standards
are
Within ± 10% control limits

ACTION: None

sample # constituent value/qual

sample # constituent value/qual



RCRA LEVEL C QC

Name C.J. Simiele

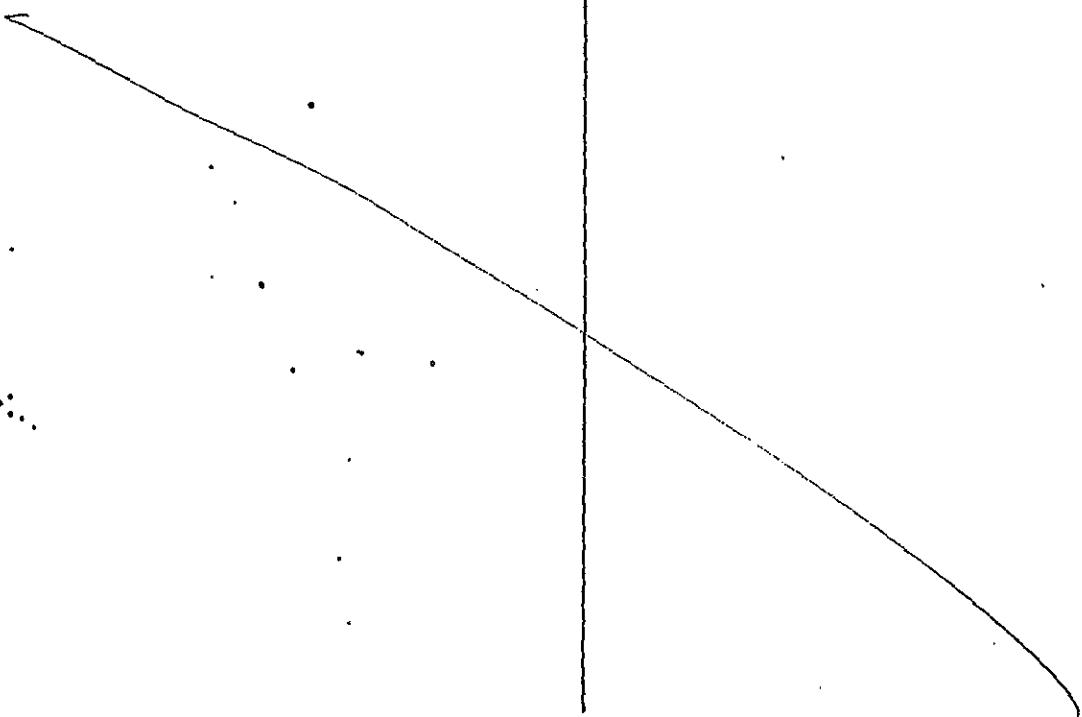
Date 3-5-91

QC check: Analytical Blank

COMMENTS: Hg method blank appears to be
contaminant free. (No D.C. provided
for Hg analysis.)

ACTION: None

sample # constituent value/qual sample # constituent value/qual



— of —

RCRA LEVEL C QC

Name C.J. Simiele

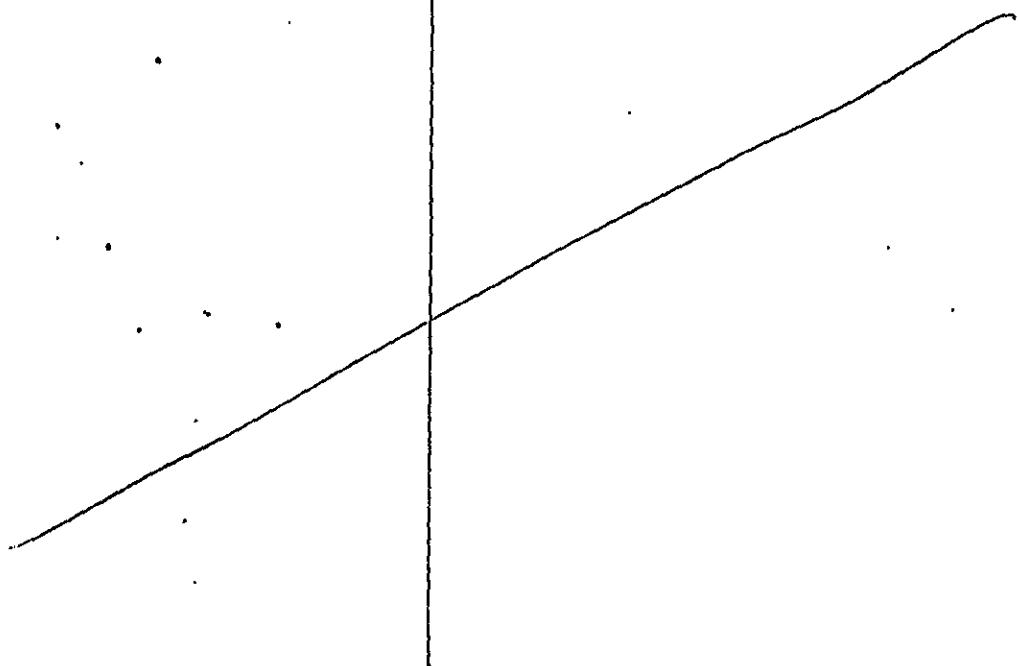
Date 3-5-91

QC check: LCS

COMMENTS: No LCS data provided with data package.

ACTION: None

sample # constituent value/qual | sample # constituent value/qual



____ of ____

RCRA LEVEL C QC

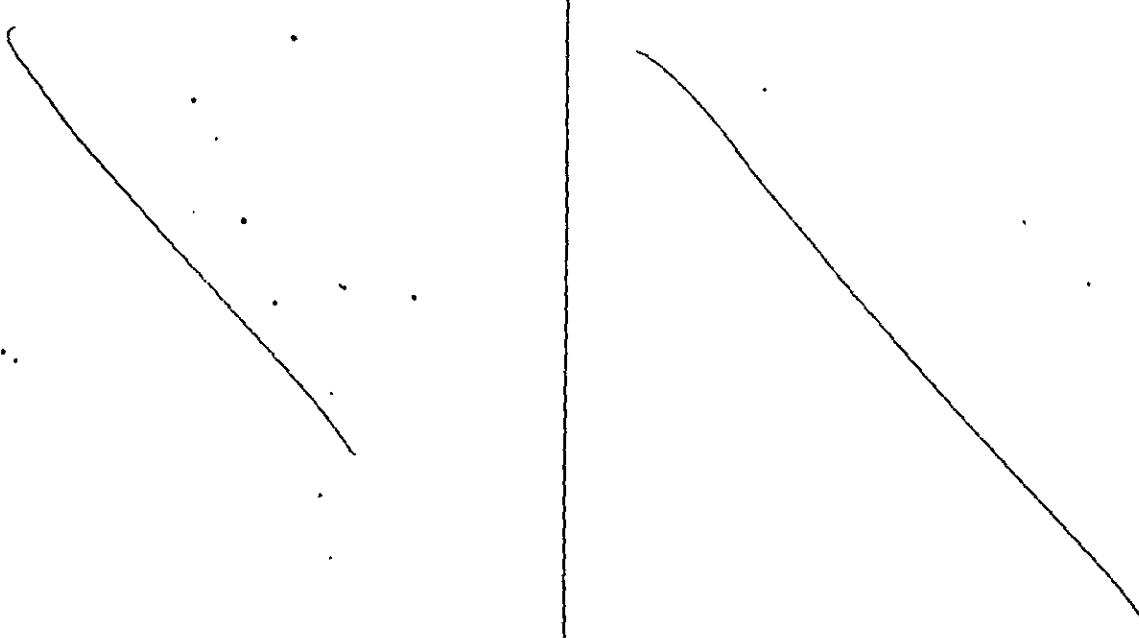
Name C.J. Simpler Date 3-5-91

QC check: Matrix Spike

COMMENTS: Hg matrix spike % Recovery is out of
the $\pm 25\%$ control limit. (%Rec = 58%)

ACTION: Qualify associated samples as per
OSM Guidelines.

sample #	constituent	value/qual	sample #	constituent	value/qual
90-4180-D1	Hg	J			



— of —

RCRA LEVEL C QC

Name C.J. Simiele

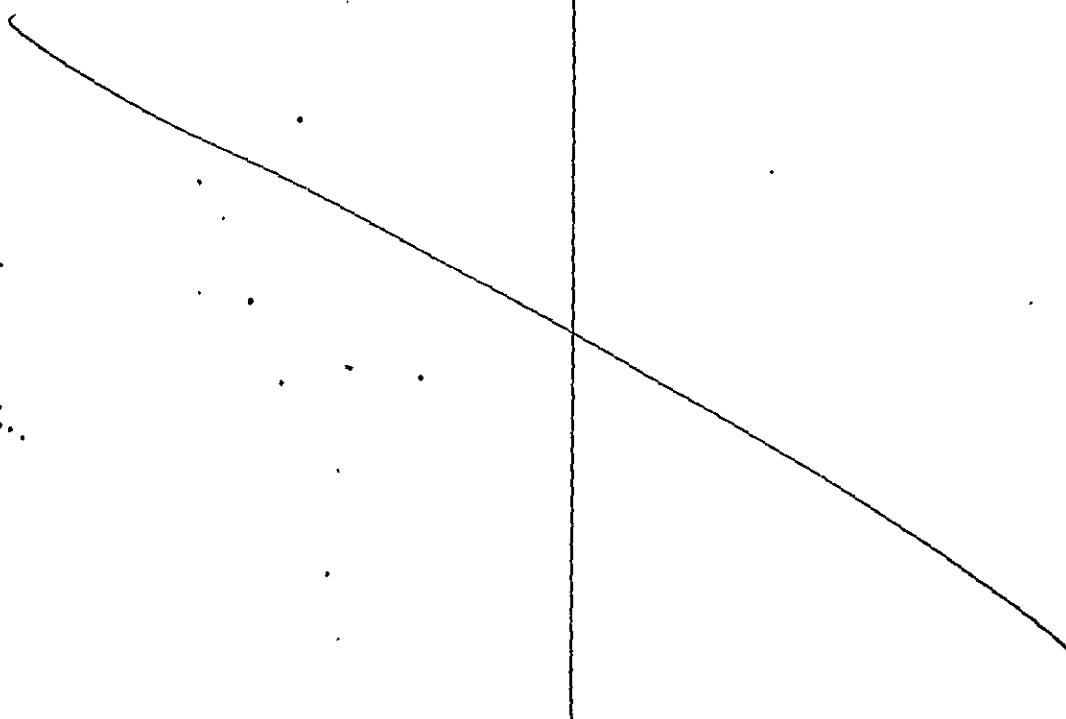
Date 3-5-91

QC check: Duplicate Analyses

COMMENTS: Hg duplicate analysis RPD is with
in $\pm 20\%$ (control) limits

ACTION: None

sample # constituent value/qual | sample # constituent value/qual



— of —